

Appendix G

State Historic Preservation Office Documentation from Major Recent Investigations



DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
P.O. BOX 190010
2155 EAGLE DRIVE
NORTH CHARLESTON, S.C. 29419-9010

FILE COPY

Code 064RJ
12 June 1995

Mr. George Vogt, SHPO and Director
Department of Archives and History
State of South Carolina
Post Office Box 1169
Columbia, South Carolina 29211

Re: PROGRAMMATIC AGREEMENT AMONG: THE DEPARTMENT OF
THE NAVY, SOUTH CAROLINA STATE HISTORIC
PRESERVATION OFFICER, AND THE ADVISORY COUNCIL ON
HISTORIC PRESERVATION FOR THE: BASE CLOSURE AND
DISPOSAL OF THE NAVAL BASE CHARLESTON, SOUTH
CAROLINA

Dear Mr. Vogt:

I am enclosing the subject document which is the result of extended consultation by the Navy with your staff, the Advisory Council on Historic Preservation, the National Trust for Historic Preservation (Southeastern Region), and local interested parties including the Charleston Naval Complex Redevelopment Authority.

This document is being sent to you in an original and five (5) copies. It is requested that once you have reviewed and signed the document in the appropriate space, that the original and all copies then be forwarded to the Advisory Council on Historic Preservation (Eastern Office of Project Review) for their review and signature. You will notice that the document has already been signed by Rear Admiral L.N. Oden, Commander of Naval Base Charleston, and Arthur Ravenel, Jr., Chairman of the Charleston Naval Complex Redevelopment Authority.

By copy of this correspondence, I am advising the Advisory Council on Historic Preservation that the document has been forwarded to you, and that they will be receiving the document within the next 35-40 days, if not, hopefully, sooner. Please accept our gratitude for the professional and willing assistance provided us by your staff over the past year and a half. Should you have any questions, please contact me at (803) 743-0990.

Sincerely,

R.N. JOHNSON
Historic Preservation Officer

Copy to:
Advisory Council on Historic Preservation (Attn: Ms. Druscilla Null)

PROGRAMMATIC AGREEMENT

AMONG:

THE DEPARTMENT OF THE NAVY,
SOUTH CAROLINA STATE HISTORIC PRESERVATION OFFICER,
AND
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION

FOR THE:

BASE CLOSURE AND DISPOSAL OF
THE NAVAL BASE CHARLESTON, SOUTH CAROLINA

May 1995

WHEREAS the United States Navy (Navy) is responsible for implementation of applicable provisions of the Base Closure and Realignment Act of 1990 (P.L. 101-510 [1990]); and

WHEREAS the Navy is proceeding with realignment of functions and units, closure of installations, and disposal of excess and surplus property in a manner consistent with the "Report of the President's Commission on Base Realignment and Closures", dated July 1, 1993 (Commission Report); and

WHEREAS the Navy has determined that closure, interim leasing, and licensing, and/or disposal of portions of Naval Base Charleston (NAVBASE), South Carolina, will have an effect upon properties that are eligible for listing in the National Register of Historic Places (hereinafter referred to as "historic properties"), and has consulted with the South Carolina State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (Council) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C., Section 470f), Section 110(f) of the same Act (16 U.S.C., Section 470h.2[f]), and Section 111 of the same Act (16 U.S.C., Section 470h.3); and

WHEREAS the historic properties include Archeological Site #38CH1496 and those properties and structures within three (3) historic districts known as the Industrial District, the Hospital District, and the Housing District plus four (4) individual historic properties, (Appendices 1, 2, 3, and 4), as formally determined eligible for listing in the NRHP through consultation and consensual agreement between the SHPO and the Navy in correspondence dated August 18, 1994 (Appendix 5); and

WHEREAS appropriate restrictive devices have been prepared to protect these properties in the event of lease (Appendix 6) or transfer/sale (Appendices 7 and 8); and

WHEREAS there is an agreed upon mechanism for the amendment of this document as

future circumstances may require (Appendix 9); and

WHEREAS interested members of the public, including the Charleston Naval Complex Redevelopment Authority, the National Trust for Historic Preservation, the Historic Charleston Foundation, the Preservation Society of Charleston, and the various local governments have been provided an opportunity to comment on the effects this Base Closure and Disposal action may have on historic properties at Naval Base Charleston, and the Charleston Naval Complex Redevelopment Authority has been invited to concur with this Agreement; and

NOW, THEREFORE, the Navy, the SHPO, and the Council agree that the undertaking shall be implemented in accordance with the following stipulations to take into account the effect of the undertaking on the historic properties.

STIPULATIONS

The Navy will ensure that the following stipulations are implemented:

I. Architectural and Archeological Properties

A. For the purposes of this Agreement, it is understood that:

1. The Navy will ensure that lessees, in consultation with the SHPO, will develop a reuse plan for any historic properties leased. Navy will encourage new property owner(s), in consultation with the SHPO, to develop a plan for the adaptive reutilization of historic properties which is consistent with the protective covenants attached.

2. Indirect effects of alternative re-uses on the historic properties will be examined in the Navy's National Environmental Policy Act (NEPA) documentation covering installation reuse. The SHPO's comments will be included in this report.

II. Interim Protection

A. The Navy shall ensure that any historic property that is vacated pending realignment and/or disposal is maintained and preserved pursuant to the Secretary of the Interior's *Standards for Rehabilitation and the Guidelines for Rehabilitating Historic Buildings*, *Charleston Naval Shipyard Facility Layaway Standards*, and *NAVFAC MO-913, Historic Structures Preservation Manual* (collectively referred to as "standards") to minimize deterioration.

B. The Navy shall submit annual reports to the SHPO identifying those historic buildings which have been vacated and the actions taken to secure, protect, and preserve the

properties. The first report shall be submitted in October 1995. Subsequent reports shall be submitted each October thereafter, including a list of all historic properties transferred out of Navy jurisdiction and the recipient of that property, until all historic properties have been transferred.

C. While an historic property remains under the Navy's jurisdiction, the Navy will ensure that the South Carolina SHPO has the opportunity to review and comment on any undertaking affecting such property, except those exempted in Stipulation III, before the undertaking is initiated. If the undertaking involves demolition of the property, or if the SHPO determines that the undertaking does not meet the Standards referenced in Stipulation II.A. above, the Navy will contact the Council and review will proceed pursuant to 36 CFR Part 800.

D. The Navy will give full consideration to interim protection of properties through the execution of interim leases or management agreements pursuant to Section 111 of the National Historic Preservation Act of 1966, as amended (Act).

III. Exempt Activities

Pending the transfer of historic properties out of Navy ownership, the following activities proposed by the Navy, or any of its lessees or licensees, are specifically exempt from review by the SHPO:

A. Activities which will not alter the characteristics which qualify a property for inclusion in the NRHP.

B. Activities involving non-historic properties which will have no impact upon historic properties.

C. In-kind street and parking area resurfacing, where no additional right-of-way is required within a historic district.

D. Routine maintenance within a historic district which consists of the following:

1. Removal of dead or unsalvageable trees.
2. Modifications to interiors of non-contributing buildings.
3. Minor, in-kind repair or replacement of building or site features, elements or materials of non-contributing buildings.
4. Minor, in-kind replacement of building or site features as part of emergency repair, or routine maintenance not part of a larger project.

5. Those repair and/or maintenance actions carried out in conformance to the standards and procedures contained in *NAVFAC MO-913, Historic Structure Preservation Manual, Charleston Naval Shipyard Facility Layaway Standards*, and/or the Secretary of Interior's Standards.

E. Installation of heating, ventilation, and air conditioning (HVAC) equipment, plumbing, and electrical systems, where such activities do not affect the visual character of historic properties or contributing properties within a historic district.

F. Environmental restoration and remediation of hazards which pose a threat to human health and the environment, but do not have the potential to affect historic property(ies).

IV. Recordation of Historic Properties

The Navy will be responsible for the recordation of historic properties, buildings, structures, and districts as described in the following:

A. Prior to the demolition, alteration or rehabilitation which is deemed to be an adverse effect, based on review pursuant to Stipulation II(c), on any contributing building or structure within the properties of NAVBASE, provided that property is still under the jurisdiction of the Navy, the Navy shall contact the National Park Service to determine what level of documentation is required to record the property to be affected.

B. The Navy shall ensure that all documentation so prepared is completed and accepted by the Historic American Building Survey/Historic American Engineering Record (HABS/HAER) prior to demolition or any undertaking determined to be an adverse effect upon the property through consultation with the SHPO, and that copies of this documentation are provided to the SHPO.

V. Environmental Remediation

A. The Navy may treat and/or demolish historic properties that are an immediate threat to health and safety due to: unsafe conditions of the structure; contamination by hazardous, toxic, and/or radiological (HTR) substances; natural disasters; and will notify the SHPO and Council prior to treatment or demolition and the SHPO shall provide the response within two (2) working days. The Navy shall consult with the SHPO in the development of plans for the treatment of other historic properties which require remediation due to hazardous circumstances, as they arise.

B. Emergency undertakings shall be handled in accordance with 36 CFR 800.12.

VI. Licenses, Leases and Transfers of Property

A. The Navy shall license, lease, transfer and/or dispose of parcels at NAVBASE which contain historic properties or which are in proximity to historic districts, as may be necessary or appropriate to meet the goals and objectives of the Base Realignment and Closure legislation. Such license, lease, transfer and/or disposal actions shall include protective covenants attached as Appendices 6, 7 and 8.

B. Except for those activities described elsewhere within this agreement as "Exempt Activities", prior to any construction, alteration, rehabilitation, demolition, disturbance of the ground surface, or any other action affecting historic properties or districts, the lessee or sublessee (Lessee) or licensee or other authorized occupant (Licensee) shall submit plans and specifications for the proposed action to the Navy for review and, following consultation pursuant to Stipulation II(c), approval. If the Lessee or Licensee cannot adhere to the conditions provided by the SHPO, the Lessee or Licensee shall so notify the Navy. If the disagreement over the conditions cannot be resolved, the Navy shall request the comments of the Council in accordance with the Stipulation entitled "Dispute Resolution" contained elsewhere within this agreement.

VII. Public Benefit Transfers/Title XXIX Conveyance

Public benefit transfers of historic properties to local non-federal entities (as authorized in Title XXIX of the National Defense Authorization Act of 1994) will include appropriate preservation covenants, as set forth in Appendices 7 and 8. Federal agency recipients will be responsible for compliance with Sections 106 and 110 of the NHPA with respect to those properties. The Navy will notify the SHPO and the Council in writing of each entity which requested and had property assigned to it pursuant to this stipulation and the Navy shall remind receiving Federal agencies of their NHPA responsibilities.

VIII. Public Sale

1. If the Navy determines that any or all of the historic properties should be offered for sale to the public, the Navy, in consultation with the SHPO and the Council, will prepare a marketing plan for that portion of NAVBASE containing the historic properties not yet disposed. The Navy will afford the SHPO 30 days to review and comment on the marketing plan. Should the SHPO not respond within thirty days, the Navy will assume the SHPO's concurrence in the plan. Upon receipt of the SHPO's comments on the marketing plan, the Navy will take the SHPO's comments into account prior to implementing the plan. As a minimum, the plan shall include the following:

- a. Clear, representative photographs of the property;

- b. A floor plan of each historic property indicating available square footage;
- c. A map(s) showing the historic property's location on NAVBASE and within a historic district (if applicable);
- d. Information about the property's historical significance;
- e. Notification of the requirements for the inclusion of protective covenants in transfer documents;
- f. A distribution list of potential purchasers or transferees;
- g. An advertising plan and schedule; and
- h. A schedule for receiving and reviewing offers

2. The Navy will ensure that the instrument transferring the property will incorporate the appropriate covenants attached hereto as Appendices, and that the covenants will be recorded in the real estate records of Charleston County, State of South Carolina.

3. If the Navy receives no acceptable offer due to conformance with the recommended approaches contained within this Agreement and its Appendices, the Navy, in consultation with the SHPO, the Council, and the interested parties may:

- a. Modify the requirement(s) to rehabilitate or maintain one or more properties in such a way as to preserve one or more specified character-defining attributes; or,
- b. Waive the requirement to rehabilitate or maintain one or more properties in such a way as to preserve one or more specified character-defining attributes; and
- c. If marketing with these changes fails, and after consultation with the SHPO, Council, and other interested parties, the Navy may transfer the property without a preservation covenant.

IX. Dispute Resolution

Should the SHPO object within thirty (30) days to any proposed action pursuant to this Agreement as it relates to Licensees, Lessees, or the Navy as caretaker, the Navy shall consult

with the SHPO to resolve the objection. If the Navy determines that the objection cannot be resolved, the Navy shall forward all documentation relevant to the dispute to the Council. Within 30 days after receipt of all pertinent documentation, the Council will either: (1) provide the Navy with recommendations, which the Navy will take into account in reaching a final decision; or (2) comment pursuant to 36 CFR Part 800.6(b). Any Council comments provided shall be taken into account by the Navy in accordance with 36 CFR Part 800.6(c)(2) with reference only to the subject of the dispute. The Navy's responsibility to carry out all actions under this Agreement that are not the subject(s) of the dispute will remain unchanged.

X. Anti-Deficiency Act

A. All requirements set forth in this Agreement requiring the expenditure of Navy funds are expressly subject to the availability of appropriations and the requirements of the Anti-Deficiency Act (31 U.S.C. Section 1341). No obligation undertaken by the Navy under the terms of this Agreement shall require or be interpreted to require a commitment to expend funds not appropriated for a particular purpose.

B. If the Navy cannot perform any obligation set forth in this Agreement due to the unavailability of funds, the Navy, the SHPO, and the Council intend the remainder of the Agreement to be executed. Any obligation under the Agreement which cannot be performed due to the unavailability of funds must be renegotiated between the Navy, the SHPO, and the Council.

XI. Annual Review

1. One year after the execution of this agreement, and annually thereafter until all historic property within NAVBASE has been transferred out of Navy jurisdiction, the Navy will host a meeting of the parties to this agreement with other interested parties, to review implementation of Stipulations set forth in this document, and determine whether additional measures are needed to protect the character and integrity of the historic properties. The Navy will ensure that any measures agreed upon are implemented for so long as the property remains under Navy jurisdiction.

XII. Amendments

Any party to this Agreement may request that it be amended, whereupon the parties will consult in accordance with 36 CFR Part 800.13 to consider such amendment. Format for recommended amendments is provided as Appendix 9.

EXECUTION of this Agreement and implementation of its terms evidence that the Navy has afforded the Council an opportunity to comment on the closure and disposal of the Naval Base Charleston, South Carolina, and its effects on historic properties, and that the Navy has taken into account the effects of the undertaking on historic properties.

FOR THE DEPARTMENT OF THE NAVY:

By: L. N. Oden Date: 31 May 1995
L. N. ODEN
Rear Admiral, U.S. Navy
Commander, Naval Base, Charleston

FOR THE SOUTH CAROLINA STATE HISTORIC PRESERVATION OFFICER:

By: _____ Date: _____
Mary Watson Edmonds
Deputy State Historic Preservation Officer
South Carolina Department of Archives and History

FOR THE ADVISORY COUNCIL ON HISTORIC PRESERVATION:

By: _____ Date: _____
Robert D. Bush
Executive Director
Advisory Council on Historic Preservation

CONCUR:

By: Arthur Ravenel, Jr. Date: 6/9/95
Arthur Ravenel, Jr.
Chairman
Charleston Naval Complex Redevelopment Authority

APPENDIX 1

NAVAL BASE CHARLESTON PROPERTIES ELIGIBLE FOR INCLUSION IN THE NATIONAL REGISTER OF HISTORIC PLACES

CHARLESTON NAVAL SHIPYARD HISTORIC DISTRICT:

Bldg. 2	Bldg. 2A	Bldg. 3	Bldg. 4 ⁽ⁿ⁾	Bldg. 5
Bldg. 6	Bldg. 7 ⁽ⁿ⁾	Bldg. 8 ⁽ⁿ⁾	Bldg. 9	Bldg. 10
Bldg. 13 ⁽ⁿ⁾	<u>Bldg. 32⁽ⁿ⁾</u>	Bldg. 35	Bldg. 43	Bldg. 44
Bldg. 46	Bldg. 56	Bldg. 57	Bldg. 58A	Bldg. 59
Bldg. 62	Bldg. 63 ⁽ⁿ⁾	Bldg. 64	Bldg. 74	Bldg. 80
Bldg. 84	Bldg. 95	Bldg. 96	Dry Dock 301	Dry Dock 302
Bldg. 302B	Dry Dock 303	Bldg. 303B	Dry Dock 304	Pier 314
Blkhd 317A	Blkhd 317B	Pier 317C	Pier 317D	Pier 317E
Pier 317F	Blkhd 333	Bldg. 342	Bldg. 351	Blkhd 352
Blkhd 354	Blkhd 356	Bldg. 1119	Bldg. 1127	Bldg. 1138
Bldg. 1190	Bldg. 1298	Bldg. 1299	Bldg. NSC 45	Bldg. NSC 66
Bldg. NSC 67				

CHARLESTON NAVAL HOSPITAL HISTORIC DISTRICT:

Bldg. NH 45	Bldg. NH 46	Bldg. NH 47	Bldg. NH 48	Bldg. NH 49
Bldg. NH 50	Bldg. NH 51	Bldg. NH 52	Bldg. NH 53	Bldg. NH 54
Bldg. NH 55	Bldg. NH 61	Bldg. NH 68	Bldg. 78	Bldg. 520B
Bldg. 758	Bldg. 759	Bldg. 760	Bldg. 761	Bldg. 762
Bldg. 763	Qtrs. CC-BB	Qtrs. EE-DD	Qtrs. GG-FF	Qtrs. HH-II
Qtrs. JJ-KK	Qtrs. LL-AA	Bldg. M-1A	Bldg. M-2A	Bldg. M-3A
Bldg. M-5	Bldg. M6-M7	Bldg. M8-M9		

NAVAL BASE SENIOR OFFICER HOUSING HISTORIC DISTRICT:

Qtrs. A	Qtrs. B	Qtrs. C	Qtrs. D	Qtrs. F
Qtrs. G	Qtrs. H-I	Qtrs. J	Qtrs. K	Qtrs. L
Qtrs. M	Qtrs. N	Qtrs. O	Qtrs. P	Qtrs. Q
Qtrs. R	Qtrs. S	Qtrs. T	Qtrs. W-X	Qtrs. Y-Z
Bldg. 1101	Bldg. 1284	Bldg. 1285	Bldg. 1287	
Bldg. 1289				

INDIVIDUALLY ELIGIBLE STRUCTURES:

Bldg. M-17	Bldg. 590-A	Bldg. 1179
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"Dead House"

*Appendix 4 shows
Dead House in
Officers' Hsg Hist Dist -
why identified
individually
well?*

APPENDIX 1 (con't)

NOTE: The structural system of all historic properties is considered to be significant and contributory to its eligibility for inclusion in the National Register of Historic Places.

SIGNIFICANT INTERIOR FEATURES OF SELECTED BUILDINGS:

Charleston Naval Shipyard District:

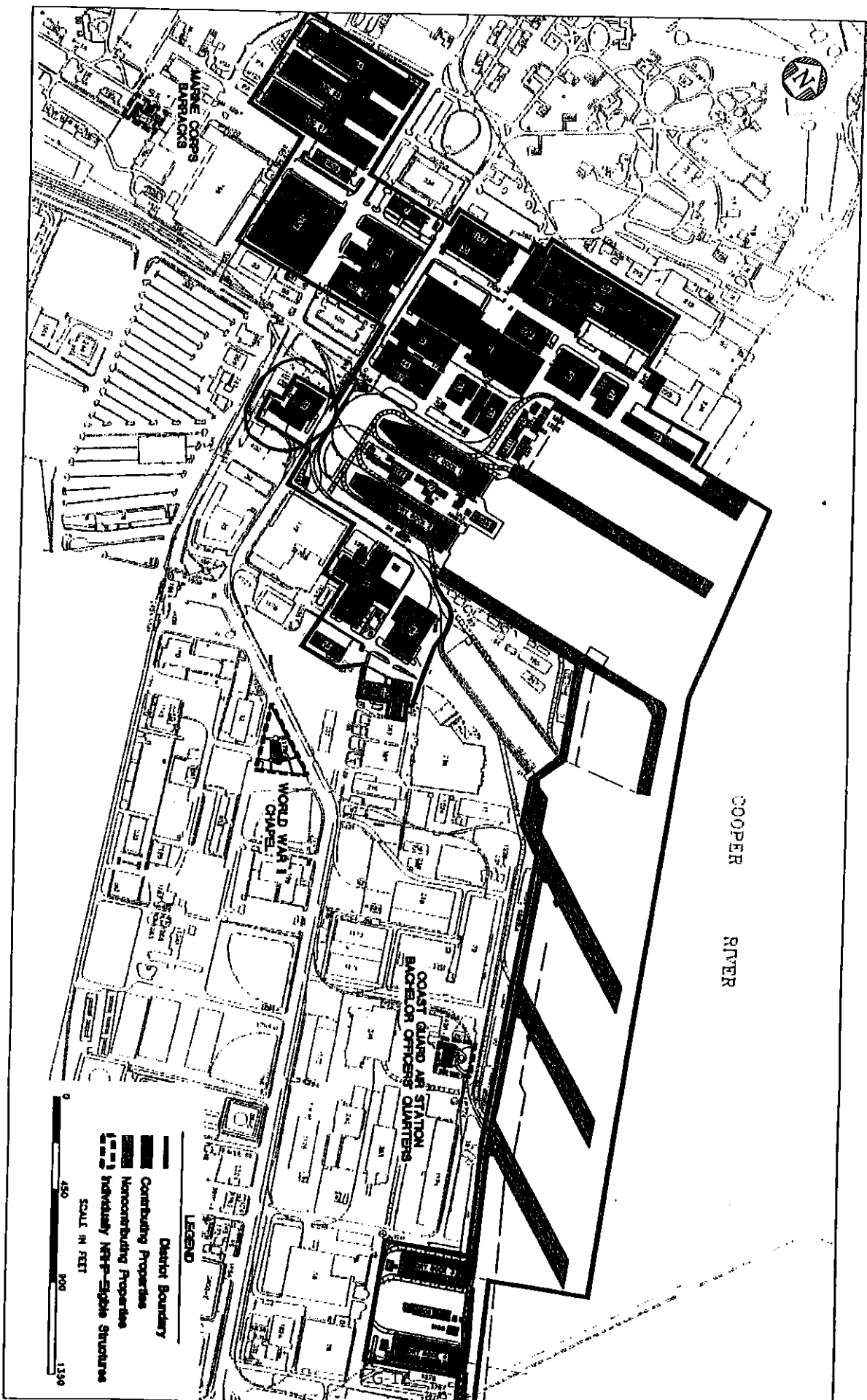
- (1) Building #4 entrance lobby and stair are significant characteristics to its eligibility.
- (2) Building #7's vestibule, entrance lobby and stair, interior door and window trim, chair rails, and baseboards are considered significant characteristics to its eligibility.
- (3) Buildings # 8, 8A contain many interior features including, but not limited to, lobbies, stairs, offices and corridors which define its historic character. Significant features and materials include, but are not limited to: plaster walls and ceilings; skylights; historic doors, transoms, and related trim; window trim; baseboards; wainscot; historic light fixtures; coved plaster ceilings; and chair rails which are significant characteristics to its eligibility.
- (4) Building #13's entrance lobby and stair, as well as its interior door and window trim, are considered significant characteristics to its eligibility.

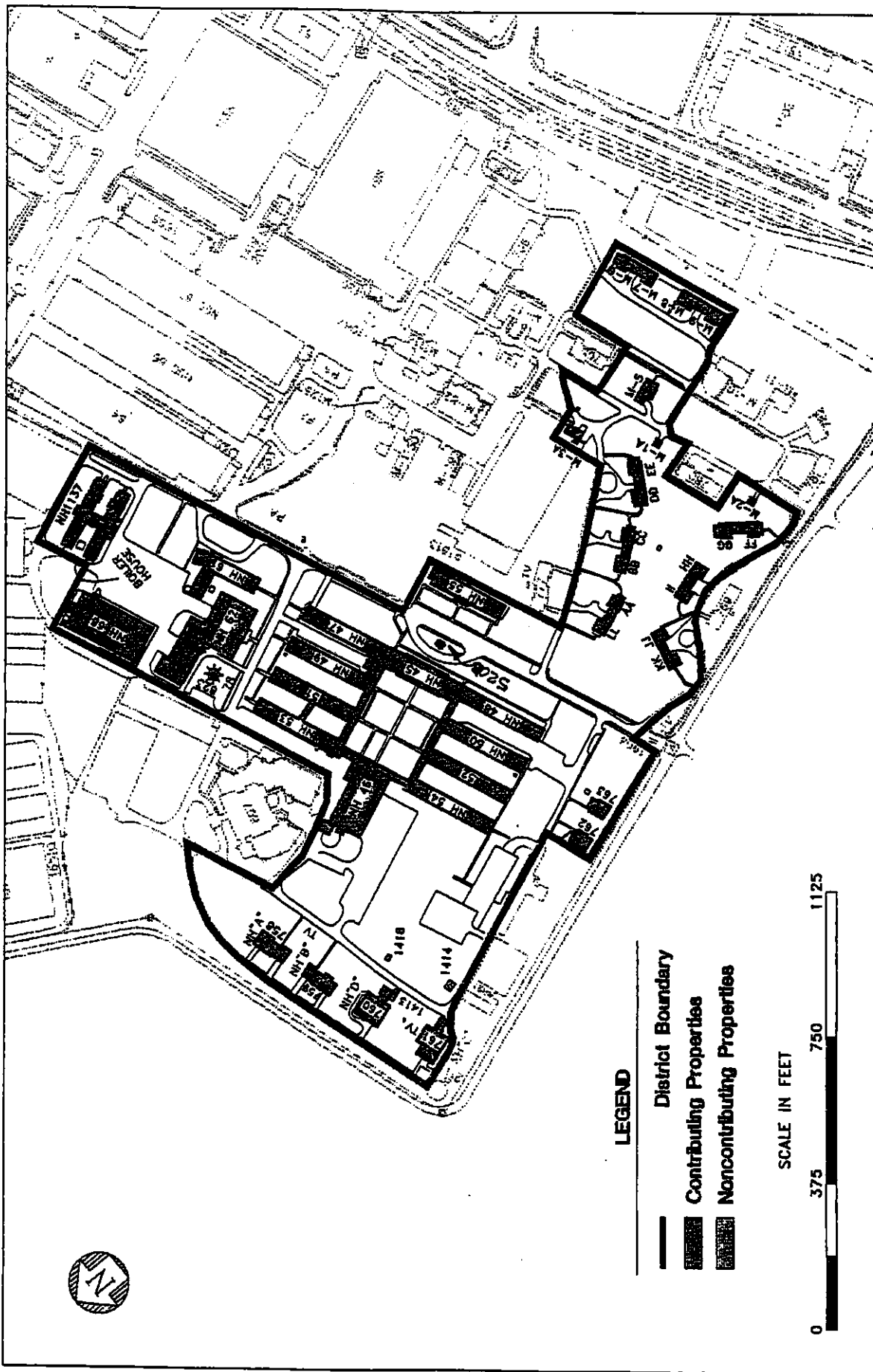
* (5) Building #32's entrance lobby and stair, as well as its interior door and window trim, are considered significant characteristics of its eligibility.

- (6) Building #63's entrance lobby and stair are considered significant characteristics of its eligibility.

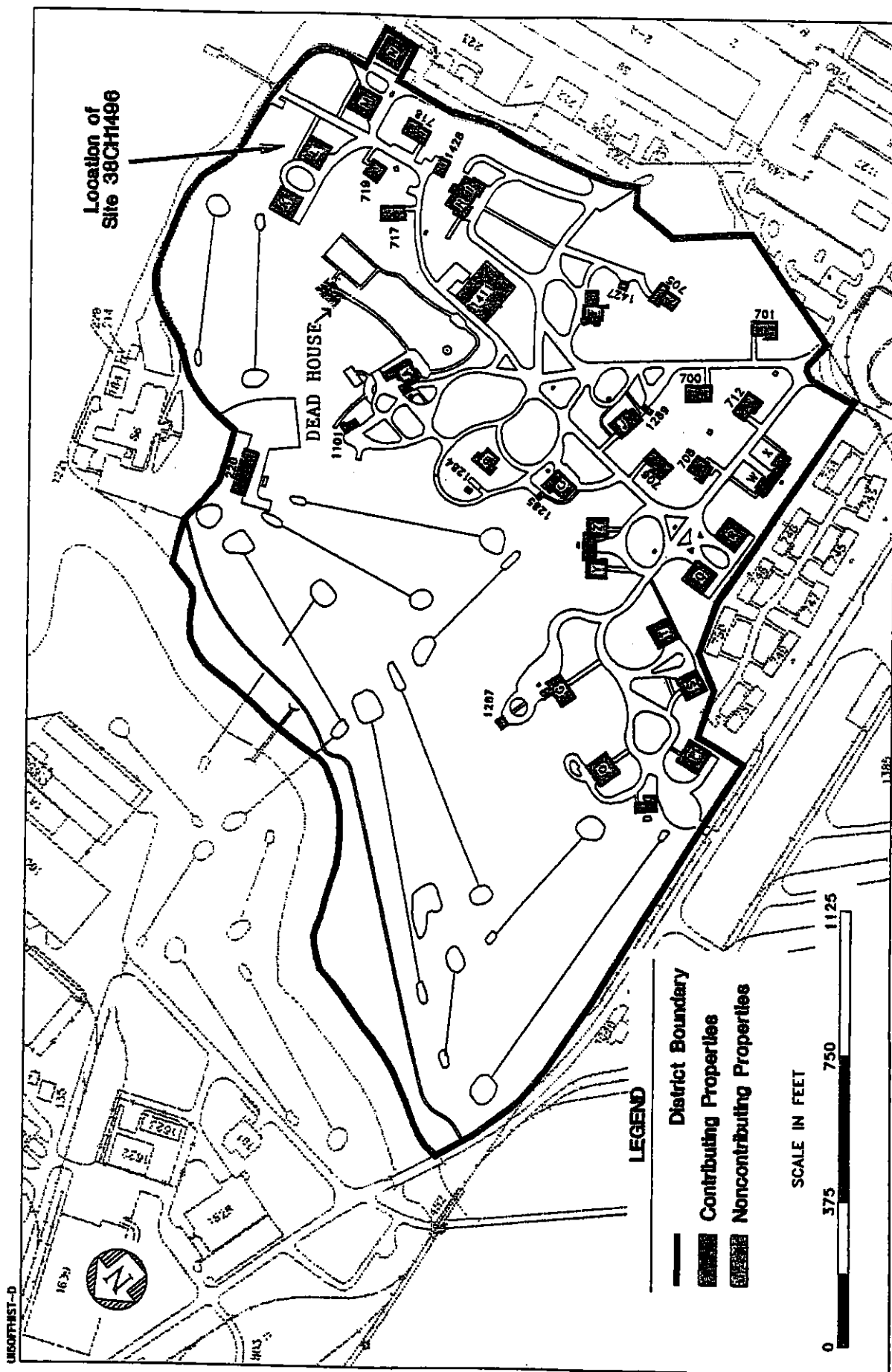
Charleston Naval Hospital District, Naval Base Senior Officer Housing District, and Individually Eligible Structures:

- (1) The interiors of eligible properties located in the Hospital District, the Senior Officer Housing District, and the Individually Eligible Structures have not been examined and evaluated by the SHPO staff at the time of preparation of this document. This examination and evaluation will take place during late May/early June 1995, and if significant interior features are found, this document will be amended pursuant to Stipulation XII and Appendix 9. In the interim, all interior modifications, repair, and maintenance on the interiors of these eligible properties will be held in abeyance pending this examination and evaluation.





NAVAL HOSPITAL HISTORIC DISTRICT



OFFICER'S HOUSING HISTORIC DISTRICT

APPENDIX 6

LEASE PRESERVATION CLAUSE

Building number(s) XXX are eligible for inclusion in the National Register of Historic Places. Lessee will coordinate any proposed aesthetic, structural or landscape alterations to this (these) building(s) with the Navy and the South Carolina State Historic Preservation Officer (SHPO) prior to undertaking said alterations. Any approved aesthetic, structural or landscape alterations to this (these) building(s) must be done in accordance with the Secretary of the Interior's *Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* (U.S. Department of the Interior, National Park Service) and will be the subject of consultation between the Lessee, the Navy, and the South Carolina SHPO.

APPENDIX 7

STANDARD ARCHITECTURAL PRESERVATION COVENANT

XXX. Grantee hereby covenants on behalf of itself, its successors and assigns, to the South Carolina State Historic Preservation Officer (SHPO) to preserve and maintain (*name of property*) located in the County of Charleston, State of South Carolina, more particularly described as (*legal description*), in a manner that preserves and maintains the attributes that contribute to the eligibility of the [*name of historic property*], of which said real property is a part, for the National Register of Historic Places. Such attributes include exterior features (including facades and fenestration, scale, color, materials, and mass), interior features determined significant by the South Carolina SHPO, and views from, to, and across the property.

(1) The [*name of property*] will be preserved and maintained in accordance with The Secretary of Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (National Park Service). No construction, alteration, rehabilitation, remodeling, demolition, disturbance of the ground surface, or other action shall be undertaken or permitted to be undertaken on (*name of property*) that would materially affect the integrity or the appearance of the attributes described above without the prior written permission of the South Carolina State Historic Preservation Officer (SHPO), and signed by a fully authorized representative thereof. *

(2) Upon acquisition of the property, the Grantee will take prompt action to secure the property from the elements, vandalism, and arson, and will undertake any stabilization that may be required to prevent deterioration. Grantee will make every effort to retain or reuse, to the extent practicable, the historic structures.

(3) In the event that archeological materials are encountered during construction or ground-disturbance activities, work shall cease in the immediate area until the SHPO is consulted and provides written permission to recommence work. Should the SHPO require, as a condition of the granting of such permission, that the Grantee conduct archeological survey data recovery operations or other activities designed to mitigate the potential adverse effect of the proposed activity on the *archeological resources* the Grantee shall at his/her/its own expense conduct such activities in accordance with the Secretary of the Interior's Standards and Guidelines for Archeological Documentation (48 FR 447344-37) and such standards and guidelines as the SHPO may specify, including, but not limited to, standards and guidelines for

research design, field work, analysis, preparation and dissemination of reports, disposition of artifacts and other materials, consultation with Native American or other organizations, and re-interment of human remains.

(4) The Grantee will allow the South Carolina SHPO or his/her designee, at all reasonable times and upon reasonable advance notice to Grantee, to inspect (*name of property*) in order to ascertain whether Grantee is complying with the conditions of this preservation covenant.

upts due
of SHPO
each
sept. ??

(5) The Grantee will provide the South Carolina SHPO with a written summary of actions taken to implement the provisions of this preservation covenant within one (1) year after the effective date of the transfer of (*name of property*). Similar reports will be submitted to the South Carolina SHPO, with a copy to the Navy, each September thereafter until the Navy has disposed of the entirety of the Naval Base Charleston historic properties.

(6) Failure of the South Carolina SHPO to exercise any right or remedy granted under this covenant shall not have the effect of waiving or limiting the exercise by the South Carolina SHPO or any other right or remedy or the invocation of such right or remedy at any other time.

(7) In the event of a violation of this covenant, and in addition to any remedy now or hereafter provided by law, the South Carolina SHPO may, following reasonable notice to Grantee, institute suit to enjoin said violation or to require the restoration of (*name of property*). The successful party shall be entitled to recover all costs or expenses incurred in connection with such a suit, including all court costs and attorney's fees.

This covenant is binding on Grantee, its successors and assigns, in perpetuity. The restrictions, stipulations and covenants contained herein shall be inserted by Grantee, its successors and assigns, verbatim or by express reference in any deed or other legal instrument by which it divests itself of either the fee simple title or any lesser estate in (*name of property*), or any part thereof.

APPENDIX 8

~~PRESERVATION COVENANT FOR ARCHEOLOGICAL SITE~~

In consideration of the conveyance of the real property that includes the (*name of archeological site*) located in Charleston County, State of South Carolina, which is more fully described as: (*Insert legal description*). Grantee hereby covenants on behalf of himself/herself/itself, his/her/its heirs, successors and assigns at all times to the United States Department of the Navy (Navy) and the South Carolina State Historic Preservation Officer (SHPO) to maintain and preserve the (*name of archeological site*) as follows:

1. No disturbance of the ground surface or any other thing shall be undertaken or permitted to be undertaken on (*name of archeological site*) which would affect the physical integrity of the archeological site without the express prior written permission of the South Carolina SHPO, signed by a fully authorized representative thereof. Should the South Carolina SHPO require, as a condition of the granting of such permission, that the Grantee conduct archeological data recovery operations or other activities designed to mitigate the adverse effect of the proposed activity on the (*name of archeological site*), the Grantee shall at his/her/its own expense conduct such activities in accordance with the Secretary of the Interior's Standards and Guidelines for Archeological Documentation (48 FR 447344-37) and such standards and guidelines as the South Carolina SHPO may specify, including, but not limited to, standards and guidelines for research design, field work, analysis, preparation and dissemination of reports, disposition of artifacts and other materials, consultation with Native American or other organizations, and re-interment of human remains.

2. Grantee shall make every reasonable effort to prohibit any person from vandalizing or otherwise disturbing the (*name of archeological site*) and shall promptly report any such disturbance to the South Carolina SHPO.

3. The South Carolina SHPO shall be permitted at all reasonable times to inspect (*name of archeological site*) in order to ascertain if the above conditions are being observed.

4. In the event of a violation of this covenant, and in addition to any remedy now or hereafter provided by law, the South Carolina SHPO may, following reasonable notice to the Grantee, institute a suit to enjoin said violation or to require the restoration of (*name of archeological site*). The successful party shall be entitled to recover all costs or expenses incurred in connection with such suit, including all court costs and attorney's fees.

5. Grantee agrees that the South Carolina SHPO may at his/her/its discretion, without prior notice to Grantee, convey and assign all or part of its rights and responsibilities contained herein to a third party.

6. This covenant is binding on Grantee, his/her/its heirs, successors and assigns in perpetuity. Restrictions, stipulations, and covenants contained herein shall be inserted by Grantee verbatim or by express reference in any deed or other legal instrument by which he/she/it divests himself/herself/itself of either the fee simple title or any other lesser estate in (*name of archeological site*) or any part thereof.

7. The failure of the South Carolina SHPO to exercise any right or remedy granted under this instrument shall not have the effect of waiving or limiting the exercise of any other right or remedy or the use of such right or remedy at any other time.

This covenant shall be binding servitude upon the real property that includes (*name of archeological site*) and shall be deemed to run with the land. Execution of this covenant shall constitute conclusive evidence the Grantee agrees to be bound by the foregoing conditions and restrictions and to perform to obligations herein set forth.

delete this file

APPENDIX 9

~~ARCHEOLOGICAL DATA RECOVERY PROJECT STANDARDS~~

Archeological data recovery shall be carried out in accordance with a data recovery plan developed in consultation with the South Carolina State Historic Preservation Officer (SHPO). The data recovery plan shall be consistent with the Secretary of the Interior's *Standards and Guidelines for Archeological Documentation* (48 FR 447344-37) and pertinent standards and guidelines of the South Carolina SHPO, and shall take into account the Advisory Council on Historic Preservation's (Council) publication, *Treatment of Archeological Properties* (Advisory Council on Historic Preservation, [draft] 1980), subject to any pertinent revisions the Council may make in the publication prior to completion of the data recovery plan. The plan shall, at a minimum, specify:

1. The property, properties, or portions of properties where data recovery is to be carried out;
2. Any property, properties, or portions of properties that will be transferred without data recovery, and the rationale for doing so;
3. The research questions to be addressed through the data recovery, with an explanation of their relevance and importance;
4. The field work methodology to be used, with an explanation of its relevance to the research questions;
5. The methodology to be used in analysis, with an explanation of its relevance to the research questions;
6. The methodology to be used in data management and dissemination of data, including a schedule;
7. The manner in which recovered materials will be disposed of, in a manner consistent with State of South Carolina law regarding disposition of archeological materials and recovered human remains;

8. The manner in which field notes and other records of field work and analysis will be preserved and disposed of;

9. The methodology to be used to involve the interested public in the data recovery process;

10. The methodology to be used in disseminating results of the work to the interested public;

11. The methodology by which parties with special interests in the property, if any, will be kept informed of the work and afforded the opportunity to participate; and,

12. The schedule for the submission of progress reports and final reports to the South Carolina SHPO and others.

Records of data recovery field work and analysis shall be retained in an archive or other curatorial facility approved by the South Carolina SHPO and disseminated as appropriate to facilitate research and management without unduly endangering historic properties. Material recovered from data recovery projects shall be curated in accordance with 36 CFR Part 79, except that human remains and artifacts associated with graves shall be treated in conformance with requirements of the *Native American Graves Protection and Repatriation Act* (Public Law 101-601).

APPENDIX 9

AMENDMENT FORM

Amendment # _____

Date: _____

PROGRAMMATIC AGREEMENT

AMONG:

**THE DEPARTMENT OF THE NAVY,
SOUTH CAROLINA STATE HISTORIC PRESERVATION OFFICER,
AND
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION**

FOR THE:

**BASE CLOSURE AND DISPOSAL OF
THE NAVAL BASE CHARLESTON, SOUTH CAROLINA**

1. Need for Amendment: (Describe briefly)
2. Proposed Amendment Narrative: (Specify)

DEPARTMENT OF THE NAVY:

By: _____ Date: _____
(Typed Name, Rank, Title and Command)

SOUTH CAROLINA STATE HISTORIC PRESERVATION OFFICER:

By: _____ Date: _____
(Typed Name and Title)

ADVISORY COUNCIL ON HISTORIC PRESERVATION:

By: _____ Date: _____
(Typed Name and Title)



South Carolina
Department of Transportation

CHAR
14010
10-DC0077
AE

RECEIVED

JUN 21 2010

June 16, 2010

SC Department of
Archives & History

Ms. Elizabeth Johnson
Deputy State Historic Preservation Officer
South Carolina Dept. of Archives & History
8301 Parklane Road
Columbia, S. C. 29223-4905

Re: No need for archaeological or historical architectural surveys for the U.S. 78 over SCL RR Bridge Replacement Project, Charleston County. File No. 10.37903A, PIN 37903_BR01.

Dear Ms. Johnson:

The Department has completed cultural resources background research and a review for the above referenced project. After a careful review of the road plans, GIS data, and digital imagery (e.g. Google Earth), it is recommended that no additional archaeological and historical research is necessary for this project. A memorandum supporting the reasons for this decision is enclosed. The US 78 bridge was previously recommended eligible for the NRHP. An MOA dated October 31, 1996 initiated the HAER documentation of the existing bridge. The HAER documentation was accepted by FHWA on September 2, 1998.

In accordance with the memorandum of agreement approved by the Federal Highway Administration, March 16, 1993, the Department is providing this information as agency official designee, as defined under 36 CFR 800.2, to ensure compliance with Section 106 of the National Historic Preservation Act.

It is requested that you review the enclosed material and, if appropriate, indicate your concurrence in the Department's findings, thus completing the Section 106 consultation process. Please respond within 30 days if you have any objections or if you have need of additional information.

Sincerely,

Chad C. Long,
Archaeologist

JAC:jac

Enclosures

I ~~(do not)~~ concur in the above determination.

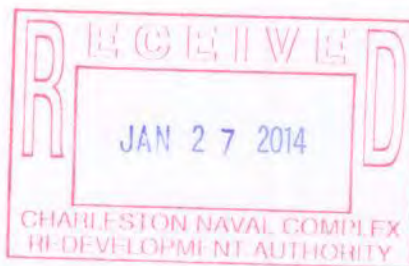
Signed: Date: 6/21/10

cc: Shane Belcher, FHWA
Wenonah G. Haire, Catawba Nation THPO
Keith Derting, SCIAA

File: ENV/JAC



January 22, 2014



Mr. Robert Ryan
Executive Director
Charleston Naval Complex
Redevelopment Authority
1096 Navy Way
North Charleston, SC 29405

Re: Eternal Father of the Sea Chapel,
North Charleston, Charleston County

Dear Mr. Ryan:

We received 30% Design Review plans from Glenn Keyes Architects, on your behalf. Also included was a letter report from 4SE. As you know, all work is subject to a protective covenant, placed on the properties at the time of the Naval Base transfer.

We believe that the project as currently proposed would cause No Adverse Effect on the Charleston Navy Yard Officers' Quarters Historic District. This is based on Building 705 not contributing to the District and the proposal to retain a screen of existing vegetation between the proposed site and the rest of the District.

It is also clear from the proposal that great care is being taken to retain the maximum amount of historic materials from the original building and to incorporate those materials in the reconstructed building. We do note the expansion of the transept, providing additional space for restrooms and dressing rooms. This expansion appears to be compatible with the overall character of this ecclesiastical building.

Please feel free to contact us if you have any questions about our comments or any other issues. For questions on procedural issues please contact me, at 803-896-6168; for questions on technical architectural issues contact Dan Elswick at 803-896-6174.

Sincerely,

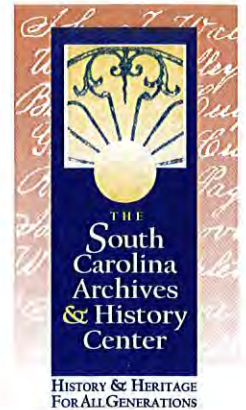
A handwritten signature in black ink, appearing to read 'Elizabeth M. Johnson'.

Elizabeth M. Johnson
Director, Historical Services, D-SHPO

Cc: Sean McDonell
Glenn Keyes

July 24, 2014

Eric C. Poplin
Brockington and Associates
498 Wando Park Blvd., Suite 700
Mt. Pleasant, SC 29464



Re: SC Public Railways Proposed Intermodal Container Transfer Facility
2011 Cultural Resources Investigations
Charleston County, South Carolina
SHPO Project No. 13-EJ0063

Dear Mr. Poplin:

Thank you for your letter of June 24, 2014, which we received on June 25, 2014, regarding Cultural Resources Investigations conducted in 2011 for the SC Public Railways Proposed Intermodal Container Transfer Facility. We also received a Section 106 Project Review Form, maps showing two proposed locations for the facility, and copies of the *Architectural Survey for the Intermodal Container Transfer Facility at the Charleston Naval Base* and the *Phase I Archaeological Survey of the Intermodal Container Transfer Facility at the Former Charleston Naval Base* prepared by Wilbur Smith Associates as supporting documentation for this undertaking.

The State Historic Preservation Office is providing comments to the Corps of Engineers and SC Public Railways pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR 800. We understand that a draft Environmental Impact Statement (EIS) is currently being prepared for this project. Consultation with the SHPO is not a substitution for consultation with Tribal Historic Preservation Offices, other Native American tribes, local governments, or the public.

Our comments are limited to a review of the investigations described in the 2011 reports and the maps provided with your letter. We understand that the proposed project area has changed since the time of the 2011 investigations, as have plans for the facility; therefore, the Assessments of Effects provided in the two reports are not definitive. An updated Assessments of Effects for the project will be a part of the EIS development. However, we note that the Corps map Figure 6.1-1 Alternative 2 site would severely adversely effect both the Naval Hospital and Naval Shipyard Yard Historic Districts and therefore recommend strongly against the alternative.

We also noted that the boundaries in the "Area to Survey" project tract map and Project Area Map Draft map do not match the project area boundaries as depicted in the Corps map/Figure 2.1-1. We will need to see a map of the current Area of Potential Effects (APE), as determined by the Corps and/or other federal agencies, with historic properties overlayed on the project area boundary/APE. We concur with the shaded areas to survey in the "Area to Survey" map.

Phase I Archaeological Survey: We concur with the field methodology used and the recommendation by Wilbur Smith that no further archaeological work is needed. The 2011 investigation found a loss of integrity due to extensive land modifications and did not identify any archaeological resources. To fully meet the requirements of the SC Standards and Guidelines for Archaeological Investigations to include the cultural history of the project region, we request a more encompassing cultural context chapter. Currently, the report provides a history of the Naval Yard, but given that the archaeological sites

surrounding the area are both prehistoric and historic, the report should cover the full scope of historic properties, and also include a map that shows the previously identified sites in the area in respect to the project's APE.

Architectural Survey: The report outlines previous cultural resources investigations carried out in the *City of North Charleston Historical and Architectural Survey* (1995), *Inventory, Evaluation, and Nomination of Military Installations: Naval Base Charleston* (1995) and National Register of Historic Places district nominations for the Officer Housing Historic District (2007), Naval Hospital Historic District (2010) and Naval Shipyard Historic District (2006). Please note on p. 19 that the Naval Hospital Historic District nomination was revised by Richard Sidebottom.

Wilbur Smith appears to have adequately documented the previous cultural resources investigations, to have surveyed the potentially affected buildings, including previously unevaluated and/or determined not eligible pre- and post-WWII buildings in the Hobson Avenue corridor and around the Naval Hospital District. We concur with the report's recommendation that the Chicora Place neighborhood does not meet the criteria for listing in the National Register.

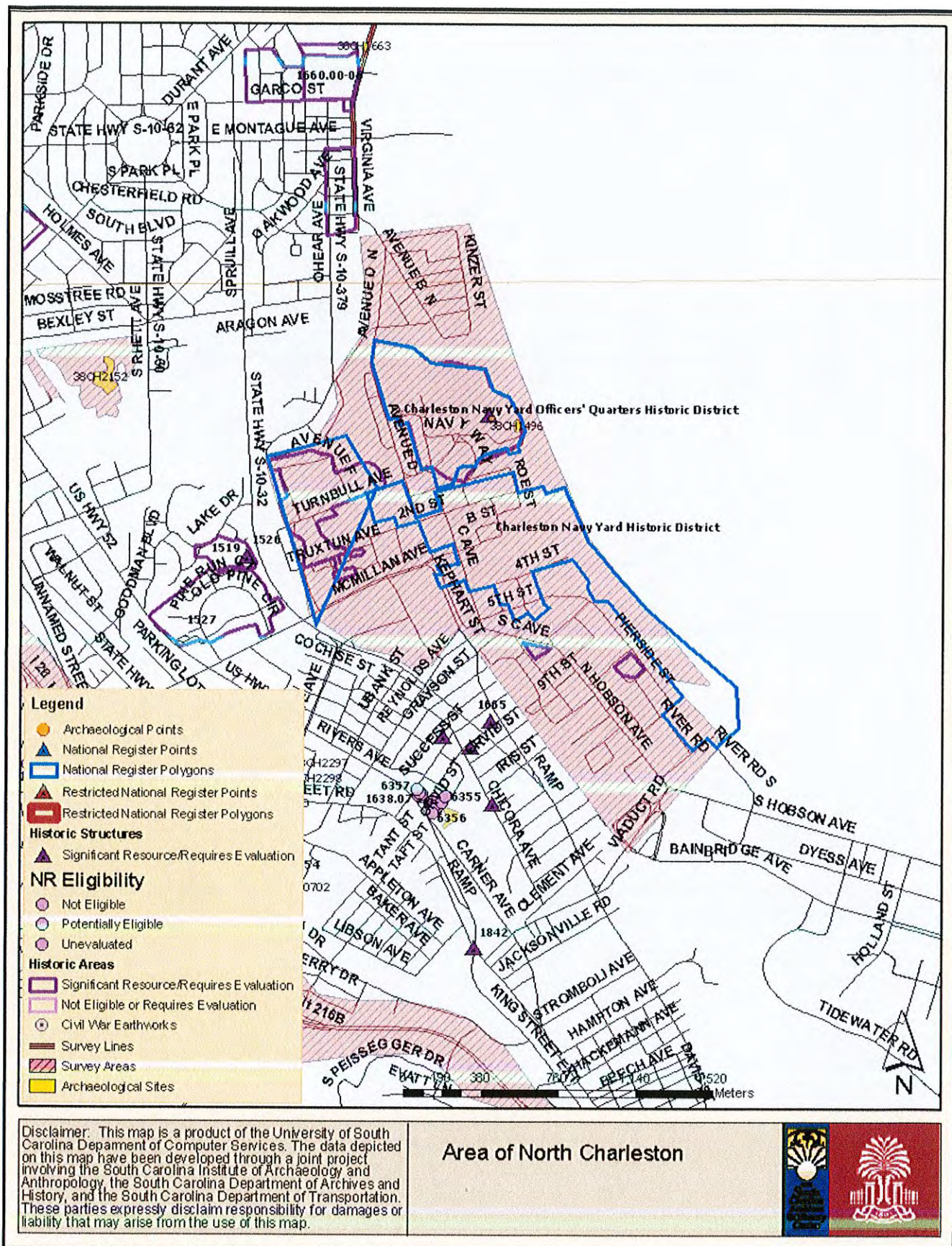
The Wilbur Smith report did not include the eligible GARCO Employee Housing that was part of the City of North Charleston Survey. The report also does not include the Chicora Elementary School (eligible) and 1915 and 1820 Carlton Street (both determined eligible). Please reassess these resources to determine if they retain eligibility. Please note that the ArchSite map included in Appendix A of the report include Historic Areas polygons does not appear to include individual Historic Structures points (see enclosed printout).

Thank you for the opportunity to review these reports. If you have any questions, please contact me at (803) 896-6168 or emjohnson@scdah.state.sc.us.

Sincerely,

A handwritten signature in cursive script, reading "Elizabeth M. Johnson", followed by a horizontal line.

Elizabeth M. Johnson
Director, Historical Services, D-SHPO
State Historic Preservation Office



December 3, 2014

Eric C. Poplin
Brockington and Associates
498 Wando Park Blvd., Suite 700
Mt. Pleasant, SC 29464



Re: SC Public Railways Proposed Intermodal Container Transfer Facility
Environmental Impact Statement – 2014 Cultural Resources Investigations
Charleston County, South Carolina
SHPO Project No. 13-EJ0063

Dear Mr. Poplin:

Thank you for your letter of November 6, 2014, which we received on November 6, 2014, regarding the recent architectural survey conducted in support of the SC Public Railways (SCPR) Proposed Intermodal Container Transfer Facility (ICTF). We also received three copies of the report, *Architectural Survey in Support of South Carolina Public Railway's Proposed Intermodal Container Transfer Facility*, and Statewide Survey of Historic Properties site forms. The State Historic Preservation Office is providing comments to the Corps of Engineers and SC Public Railways pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR 800. Consultation with the SHPO is not a substitution for consultation with Tribal Historic Preservation Offices, other Native American tribes, local governments, or the public.

National Register of Historic Places Recommendations

The survey recorded 44 buildings (SHPO site nos. 6407-6410 and 6412-6451) in neighborhoods near the Charleston Naval Complex (CNC) and recommends all of these buildings as ineligible for the National Register of Historic Places. After review of the report and site forms, we concur that these 44 buildings do not appear to meet the criteria for listing in the National Register. The survey evaluated the eligibility of six buildings (CNC Buildings NH21, NH68, 198, 759, 807 and 1189) for Cold War era significance. We concur with the recommendation that these buildings do not appear to meet the criteria for listing in the National Register for association with the Cold War. The survey also identified 12 historic properties within and near the proposed project. Of these 12, two are no longer extant, the GARCO Employee Housing residence (SHPO Site No. 1665) and the US Coast Guard Air Station Bachelor Officer's Quarters (CNC Building 590-A), and the George Legare Homes (SHPO Site No. 1519) were rebuilt. We concur with the finding that these properties no longer meet the criteria for listing in the National Register.

Overall, we concur with that sufficient inventory of the SCPR ICTF Project Area has been completed to identify historic properties that may be affected by the construction and operation of the ICTF.

Assessment of Effect Recommendations

The report also discussed the potential effects of three alternate locations/configurations for the construction of the ICTF on the existing historic properties. These include three historic districts listed in the National Register - Charleston Navy Yard (CNY), Charleston Naval Hospital (CNH), and Charleston Navy Yard Officer's Quarters (CNYOQ), and six historic properties that are eligible for National Register listing – USMC Barracks (CNC Building M17), Eternal Father of the Sea Chapel (CNC Building 1179), Chicora Elementary School (SHPO Site No. 4255), GARCO Employee Housing residence (SHPO Site No. 1664),

Ben Tillman Graded School/McNair Elementary School (SHPO Site No. 1526), and Ben Tillman Homes (SHPO Site No. 1527).

Alternate 1A: The location of Alternate 1A includes one historic building within the proposed boundary. The Eternal Father of the Sea Chapel (CNC Building 1179) is being relocated by the CNC Redevelopment Authority in consultation with our office, therefore we concur that Alternate 1A will not affect this historic property. We also concur there is minimal potential for archaeological sites and therefore ground-disturbing activities are not likely to damage or destroy archaeological sites eligible for the National Register.

Three historic districts and four additional historic properties - Chicora Elementary School, GARCO Employee Housing residence (SHPO Site No. 1664), Ben Tillman Graded School, and Ben Tillman Homes - are located near Alternate 1A. We concur with the finding that the introduction of new industrial buildings and structures will not adversely affect the viewsheds and settings of the historic districts and properties. We also concur with the recommendation that the long-term operation of the ICTF may generate more vibrations and noise that may affect the masonry elements of historic buildings. Further consultation is needed to determine how to carry out the recommended periodic monitoring of the buildings in the CNY, CNH, and CNYOQ historic districts for damage, if this is the selected alternative. Overall, Alternate 1A appears to have the least potential to adversely affect historic properties.

Alternate 1B: The location of Alternate 1B is in the same footprint as Alternate 1A, with the alteration of the location of the northern rail link. In addition to the assessment of effects noted for Alternate 1A, this rail link route would require the demolition of a number of National Register-listed buildings in the CNH, and alter the setting of the CNH by interrupting the streetscape and designed landscape and introducing higher volumes of rail traffic. It may also result in the demolition of the USMC Barracks. (Note: Page 93 describes demolition, while page 96 states the line will pass very close by the USMC Barracks.) Proximity of the rail line may create more vibrations and noise that may affect the masonry elements of historic buildings in the CNH. Therefore, we concur that Alternate 1B would result in adverse effects, as defined in the Section 106 regulations, and would require mitigation. Further consultation is needed on how to carry out the recommended periodic monitoring of the buildings for damage and to develop mitigation measures, if this is the selected alternative.

Alternate 2: The location of Alternate 2 includes portions of the CNH and CNY historic districts and would require the demolition and removal of multiple historic buildings in these districts. It would also alter the setting of the CNH, CNYOQ, and USMC Barracks. The proximity of the rail line may create more vibrations and noise that may affect the masonry elements of historic buildings in the CNYOQ. Therefore, we concur that Alternate 2 would result in adverse effects, as defined in the Section 106 regulations, and would require mitigation. Further consultation is needed to determine how to carry out the recommended periodic monitoring of the buildings for damage and to develop mitigation measures, if this is the selected alternative.

Thank you for the opportunity to review the report and for providing the site forms. Our office accepts the report and site forms as finals. If you have any questions, please contact me by phone at 803-896-6168 or e-mail at emjohnson@scdah.state.sc.us.

Sincerely,



Elizabeth M. Johnson
Director, Historical Services, D-SHPO
State Historic Preservation Office

Cultural Resources Investigations in Support of South Carolina Public Railway's Proposed Navy Base Intermodal Container Transfer Facility

Charleston County, South Carolina



March 2016

Cultural Resources Investigations in Support of South Carolina Public Railway's Proposed Navy Base Intermodal Container Transfer Facility

Charleston County, South Carolina

Draft Report

March 2016

Prepared for:

South Carolina Public Railways
Charleston, South Carolina

and

Atkins USA, Inc.
Jacksonville, Florida

Prepared by:

Sheldon Owens
Architectural Historian

and



Eric C. Poplin, Ph.D., RPA
Principal Investigator

Brockington and Associates, Inc.

Atlanta • Charleston • Elizabethtown • Jackson • Savannah

Abstract

In December 2015, Brockington and Associates, Inc. conducted a cultural resource investigation in support of the proposed Navy Base Intermodal Container Transfer Facility (NB ICTF) at the Charleston Naval Complex (CNC) for the South Carolina Public Railways (SCPR). This work was conducted through Atkins USA, Inc., as a component of the Environmental Impact Statement (EIS) being prepared by the US Army Corp of Engineers, Charleston District (USACE), for the construction and operation of the NB ICTF.

The cultural resources investigation included background research and an architectural field survey. The architectural survey involved the inspection of all standing structures within unsurveyed portions of the NB ICTF Cultural Resources Study Area. The architectural historian identified 46 new historic architectural resources (Resources 6464-6509). We recommend all 46 of these resources not eligible for the National Register of Historic Places (NRHP).

Historic properties within and near the NB ICTF Cultural Resources Study Area (Study Area) include three historic districts (all associated with the former Navy Base Charleston), two planned communities of houses and apartments (in the residential areas west of the CNC), 13 individual buildings (three within the CNC that are not associated with the Districts and 10 in the adjoining residential neighborhoods- note one historic property contains two buildings), and one structure. All three historic districts have been listed in the National Register of Historic Places (NRHP). Four of the individual buildings, one of the planned communities, and the structure have been demolished recently. These historic properties cannot be affected by activities associated with the NB ICTF or any future undertakings.

There are 11 archaeological sites in or near the Study Area, not including underwater archaeological sites in the Cooper River. Most contain both pre-historic and historic artifacts. Two of the sites near the Study Area lie in the central and eastern portion of the Charleston Navy Yard Officers' Quarters Historic District (CNYOQ); neither has been evaluated for NRHP eligibility. All of the other sites are not eligible for the NRHP. Numerous archaeological investigations within and near the Study Area rou-

tinely encountered disturbed deposits, indicating that there is little or no potential for archaeological sites that may be eligible for the NRHP to be present within the Study Area.

The EIS under development by the USACE considers seven alternative configurations of the proposed NB ICTF at two separate locations- the Proposed Project Site and the River Center Site. Both lie on the CNC. There are four alternative configurations for the Proposed Project Site (Alternatives 1-4) and three alternative configurations for the River Center Site (Alternatives 5-7).

Construction and operation of the NB ICTF within the Proposed Project Site as Alternatives 1, 3, or 4 will have an adverse effect on the Charleston Naval Hospital Historic District (CNH) and possibly on CNC Building M17 (USMC Barracks). Elements of the Charleston Navy Yard Historic District (CNY), the CNH, and the CNYOQ also may be affected by noise and vibrations related to the operation of the NB ICTF within Alternatives 1, 3, or 4. Monitoring in the future may be necessary to determine if elements of these historic properties are degrading through exposure to these potential impacts.

Construction and operation of the NB ICTF within the Proposed Project Site as Alternative 2 will have no immediate direct effects on any historic properties, although noise and vibration related to the operation of the NB ICTF within Alternative 2 will need to be monitored to determine if elements of the CNY, the CNH, the CNYOQ, or CNC Building M17 are degrading through exposure to these potential impacts.

Construction and operation of the NB ICTF within the River Center Site as Alternatives 5, 6, or 7 will have an adverse effect on the CNH, the CNY, the CNYOQ, and on CNC Building M17 (USMC Barracks). Elements of the CNY and CNYOQ also may be affected by noise and vibrations related to the operation of the NB ICTF within Alternatives 5, 6, or 7. Monitoring in the future may be necessary to determine if elements of these historic properties are degrading through exposure to these potential impacts.

Distance and intervening buildings and landscapes prevent any effects to the historic properties located outside the CNC but within or near the Study Area associated with the NB ICTF.

Acknowledgements

The authors would like to thank Krista McClanahan, Rebecca Spain-Schwartz, Frank Keel, Phil Shad, Webb Smith, Amy Dalton, Rebecca Berzinis, and Kimberley Fitzgibbons of Atkins Global, Inc. for their assistance during this project. Natalie Adams Pope and Ryan McLay provided access to reports of previous investigations by New South and Associates. Eric Poplin and Sheldon Owens conducted the background research. Sheldon Owens conducted the field investigations. Cristian LaRosa, Michael Walsh, and Inna Moore prepared the graphics for this document. Alicia Sullivan and Josh Fletcher provided editorial assistance. Michael Walsh produced the report.

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1.0 Introduction and Methods

1.1 Introduction

Brockington and Associates Inc. conducted background research and an intensive architectural survey in support of the proposed Navy Base Intermodal Container Transfer Facility (NB ICTF) at the Charleston Naval Complex (CNC) for South Carolina Public Railways (SCPR) in November-December 2015. The investigation was completed in compliance with federal regulations and state guidelines concerning the management of historic properties (buildings, structures, objects, sites, or districts listed on or eligible for the National Register of Historic Places [NRHP]) that may be affected by proposed undertakings in partial fulfillment of the National Environmental Policy Act of 1969 (Public Law 91-190); Section 4(f) of the US Department of Transportation Act of 1966, as amended in 1983 (49 USC Section 303); and the National Historic Preservation Act of 1966 (16 USC 470), as amended through 1992.

The US Army Corps of Engineers, Charleston District (USACE) considers a wide array of environmental factors, including cultural resources, when determining the potential impact or effect of the Project (the proposed NB ICTF). The proposed NB ICTF may affect historic properties within or adjacent to the Project. The Cultural Resources Study Area (effectively the Area of Potential Effect [APE] for cultural resources) encompasses two potential locations for the Project (with four alternatives for one location and three alternatives for the other location) and areas adjacent to the footprints of these locations and rail corridors to the south and east that may witness modifications to accommodate the proposed NB ICTF. The Study Area extends south from the block bounded to the north by Glenshaw Street between Spruill Avenue to the west and Hobson Avenue to the east. The western edge of the Study Area swings to the west, south of McMillan Avenue, paralleling Spruill Avenue approximately one block to the west, until reaching Hampton Avenue. Hampton Avenue, Shipyard Creek Road, Shipyard Creek, and Hamilton Avenue form the southern edge of the Study Area except where a rail corridor extends south from the CNC. The eastern edge of the Study Area follows Hobson Avenue to its intersection with Hamilton Avenue. The Study Area extends 300

feet to either side of the rail corridor that extends south from the CNC to just south of Milford Street, where the Study Area curves to the west encompassing existing rail lines. The Study Area then extends northwest 300 feet to either side of the rail corridor between US Highway 78 (King Street Extension) and US Highway 52 (Meeting Street) to just north of Accabee Road. Note that the NB ICTF Study Area was expanded to accommodate the seven Project alternatives developed by the USACE in late 2015. Figure 1.1 displays the location of the NB ICTF Cultural Resources Study Area, as well as historic properties within and near the Study Area. Figure 1.2 displays the relationship of the 2014 Cultural Resources Study Area with the present Study Area.

The Architectural Survey Universe examined in this report includes the portions of the expanded NB ICTF Study Area that fall outside of four specific areas:

- the APE that was identified, and surveyed in the *Architectural Survey for the Intermodal Container Transfer Facility at the Charleston Naval Base, North Charleston, SC* (Bean 2011)
- the boundary of the CNC, since it was extensively surveyed in the *Inventory, Evaluation, and Nomination of Military Installations: Naval Base Charleston* (R. Christopher Goodwin and Associates [Goodwin] 1995)
- areas surveyed by Poplin et al. (2006) in support of the Environmental Impact Statement (EIS) for the SC State Ports Authority's CNC Marine Container Terminal
- areas surveyed by Owens et al. (2015) in support of the EIS for the NB ICTF

Architectural Historian Sheldon Owens completed the field investigations in the survey universe from December 11 through 16, 2015. Mr. Owens identified 46 historic architectural resources (6464-6509) in the Architectural Survey Universe (which contains approximately 0.2 square miles). We recommend all 46 of the newly identified historic resources not eligible for the NRHP. Figure 1.3 shows the Survey Universe; Figures 1.4 through 1.7 show the locations of the 46 newly identified historic re-

sources. Background research identified 11 archaeological sites within or near the NB ICTF Cultural Resources Study Area (see Figure 1.1). Two sites just east of the Cultural Resources Study Area require evaluation to determine their NRHP eligibility; the other nine sites are not eligible for the NRHP.

Chapter 2 of this report discusses the natural and cultural settings of the region and the Study Area. Results of the cultural resources literature review and intensive architectural survey appear in Chapter 3. Chapter 4 presents management recommendations concerning the construction and operation of the NB ICTF on historic properties. Relevant correspondence from the South Carolina State Historic Preservation Office (SHPO) appears in Appendix A.

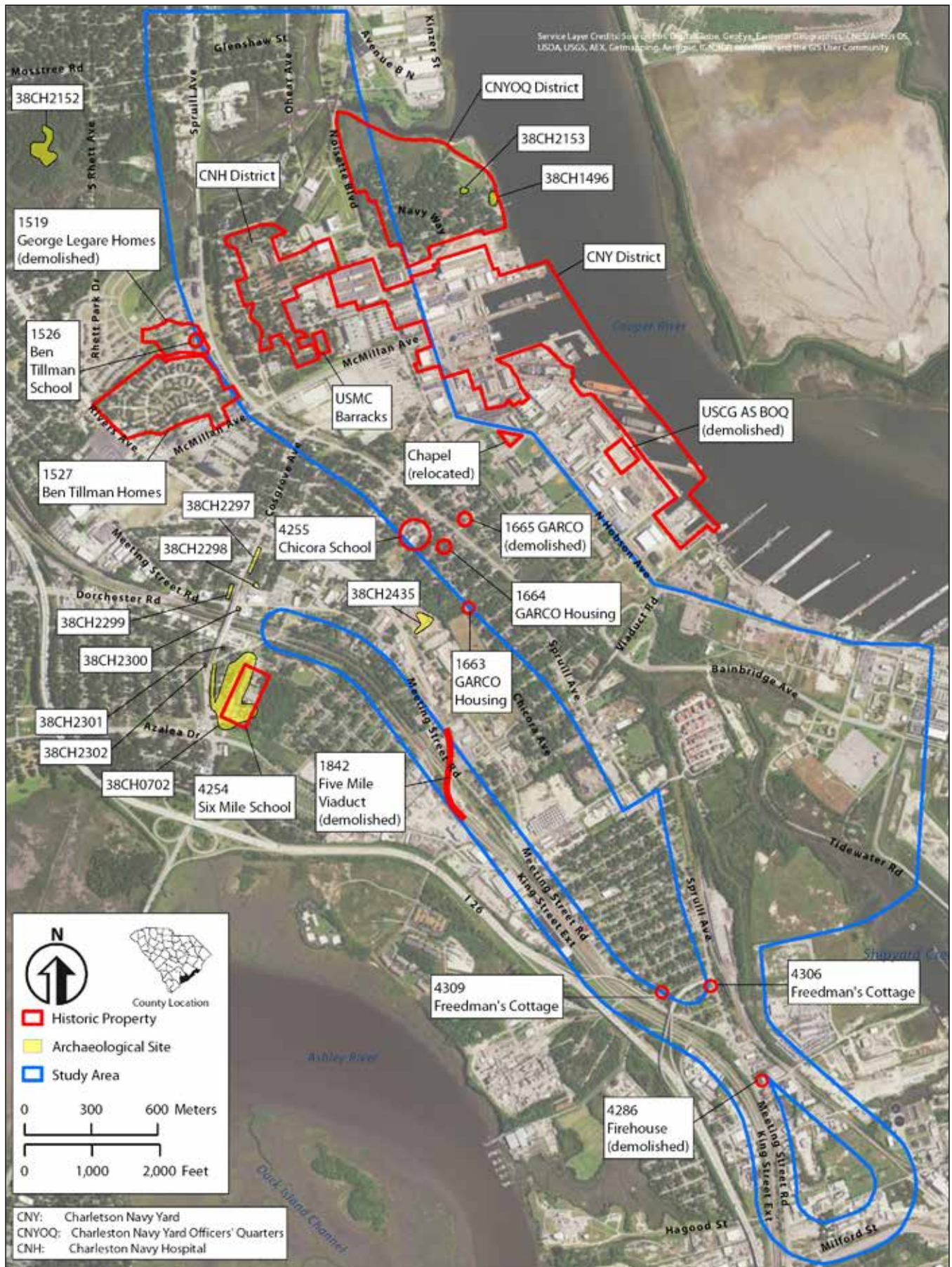


Figure 1.1 The location of the NB ICTF Cultural Resources Study Area and historic properties and archaeological sites within and near the Study Area.



Figure 1.2 The location of the former ICTF Cultural Resources Study Area with respect to the current NB ICTF Cultural Resources Study Area.

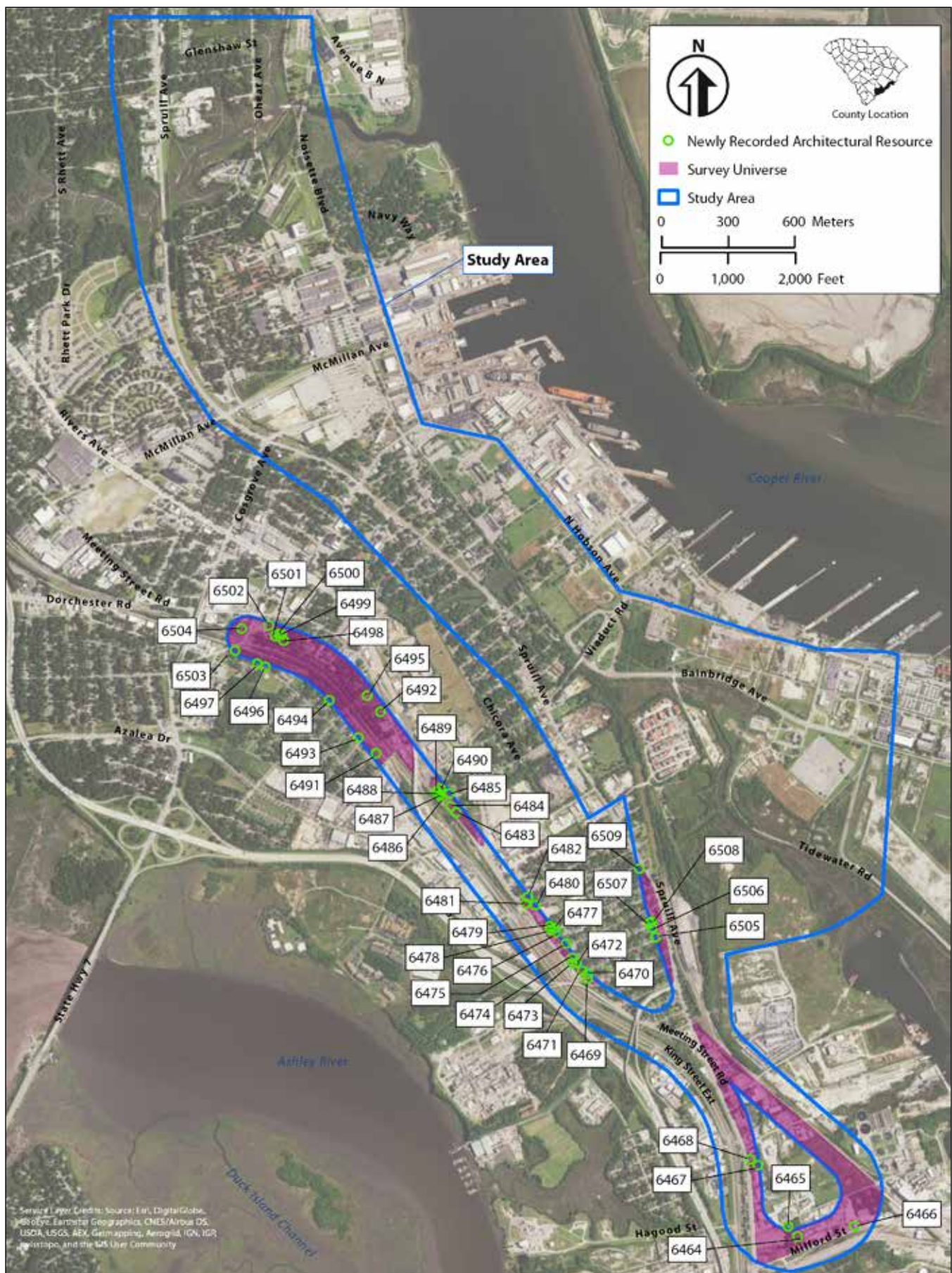


Figure 1.3 The location of the Survey Universe and newly identified resources in relation to the NB ICTF Cultural Resources Study Area.

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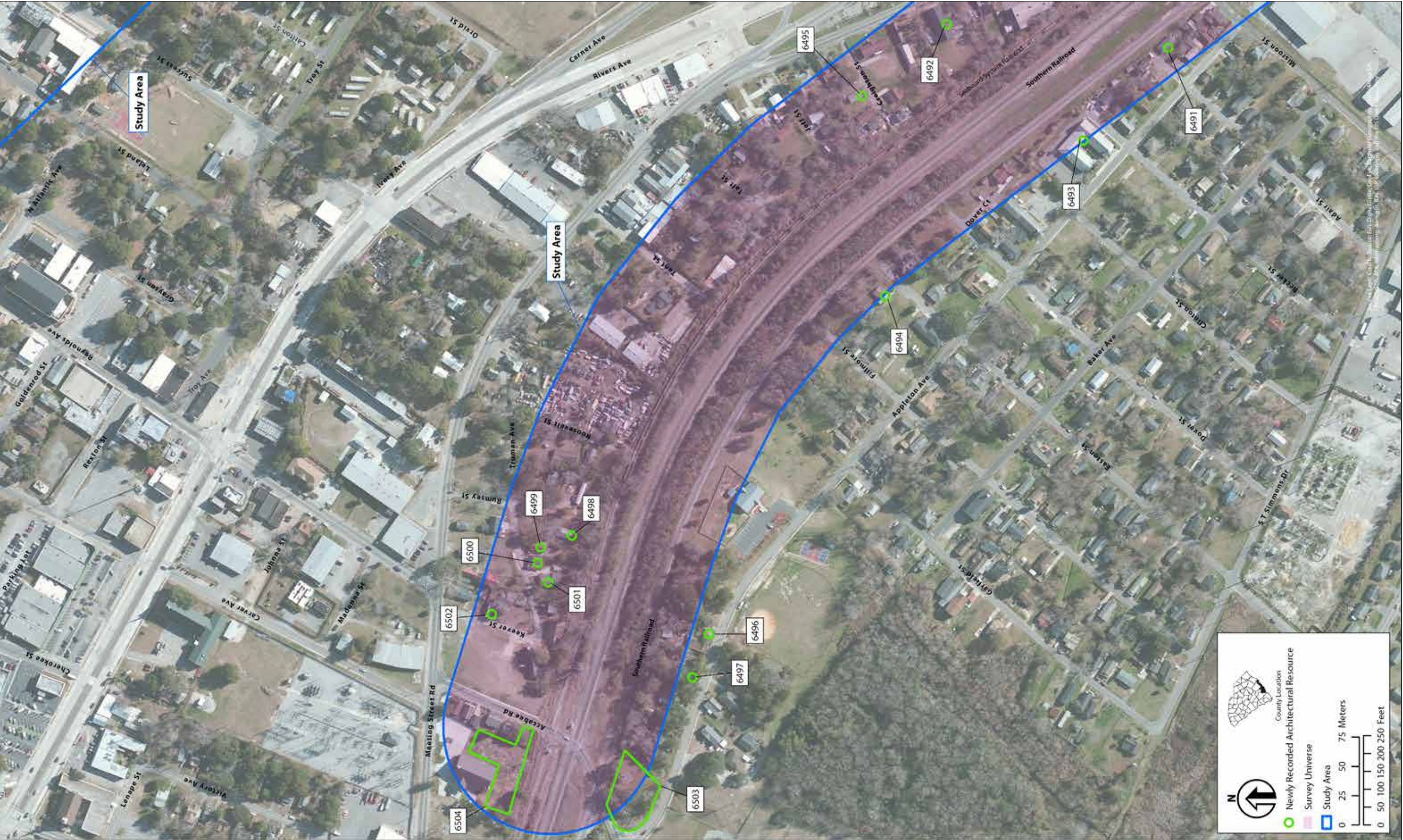


Figure 1.4 Inset of newly identified resources.

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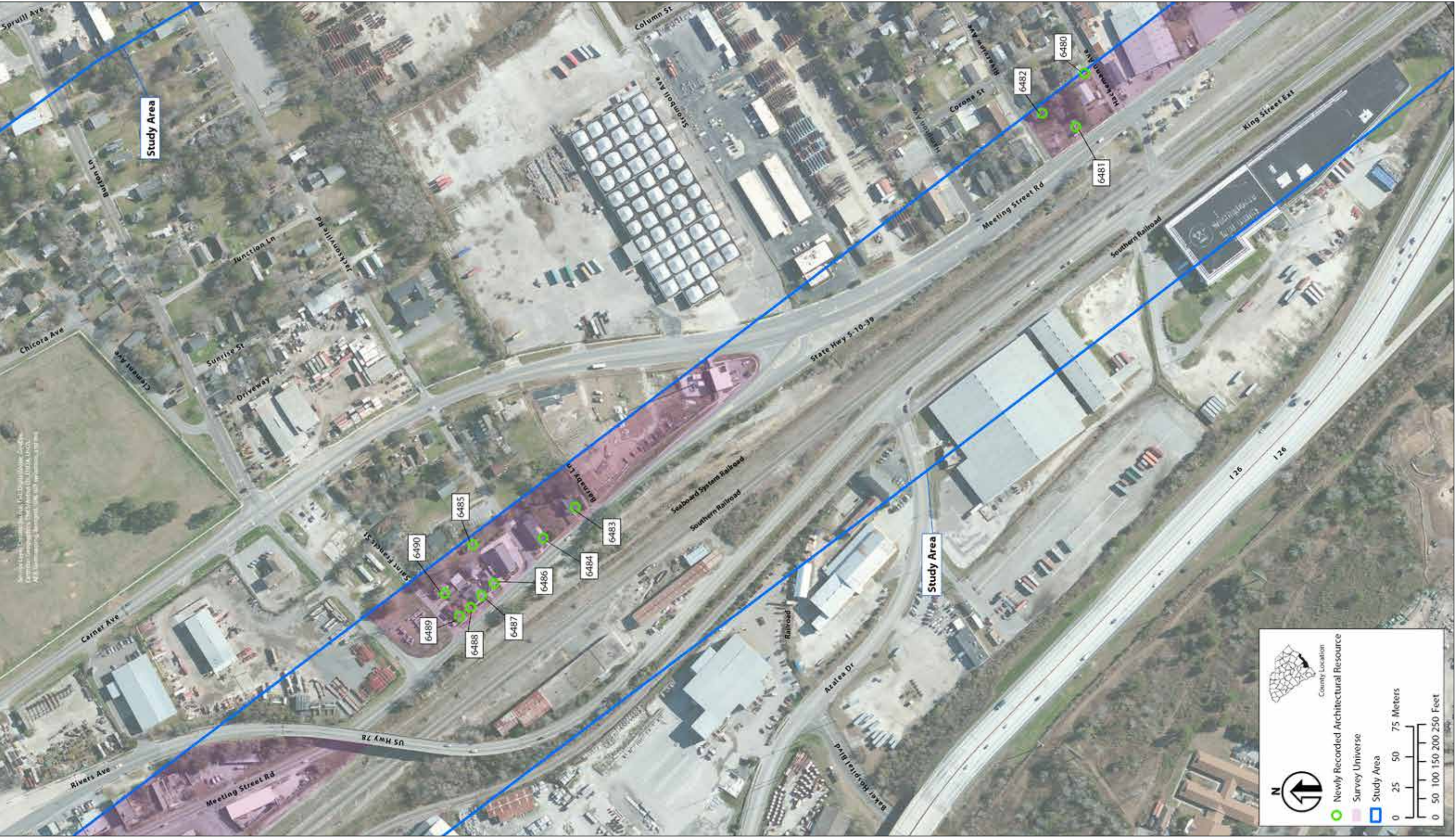


Figure 1.5 Inset of newly identified resources.

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Figure 1.6 Inset of newly identified resources.

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Figure 1.7 Inset of newly identified resources.

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1.2 Methods of Investigation

The intensive cultural resources survey of the expanded NB ICTF Study Area involved background research and an architectural survey of the unsurveyed areas as defined above. Methods employed to complete these tasks are described below. A discussion of approaches to assessing NRHP eligibility of encountered resources concludes Chapter 1.

1.2.1 Background Research

We conducted background research at the South Carolina Institute of Archaeology and Anthropology (SCIAA), the South Carolina Department of Archives and History (SCDAH), the University of South Carolina's South Caroliniana Library (all in Columbia), and the South Carolina Historical Society in Charleston. In addition, we reviewed documents at local repositories in Charleston County. We performed background research to locate any previously recorded cultural resources (NRHP properties, historic architectural resources, or archaeological sites) within or near the Study Area.

1.2.2 Architectural Survey

The Architectural Historian conducted an intensive architectural survey from publically accessible areas of all historic buildings and structures not previously recorded within the Survey Universe. A general boundary of the Survey Universe is described below through a network of roads, although the boundary often does not follow roadways exactly. See Figure 1.3 for a precise representation of the Survey Universe. This Survey Universe includes:

- previously unsurveyed areas within 300 feet of the rail corridor that lies southwest of the CNC between Accabee Road in the north and Rivers Avenue in the south, between Clement Avenue to the north and Carner Avenue to the south, and between Riverview Avenue to the north and Groveland Avenue to the south
- previously unsurveyed areas within 300 feet of the rail corridor that extends south from the CNC between Arbutus Avenue to the north and Irving Avenue to the south
- previously unsurveyed areas within 300 feet of the rail lines between Little Avenue in the

north, Meeting Street to the west, existing rail lines to the east, and existing rails to the south of Milford Street to the south.

This survey was designed to record and evaluate all unrecorded historic architectural resources (buildings, structures, objects, designed landscapes, and/or sites with above-ground components) in the Survey Universe. Field survey methods complied with the *Survey Manual: South Carolina Statewide Survey of Historic Places* (South Carolina State Historic Preservation Office [SHPO] 2013) and the *National Register Bulletin 24: Guidelines for Local Surveys: A Basis for Preservation Planning* (Parker 1985). In accordance with the scope of work and standard SCDAH statewide survey practice, the Architectural Historian traveled every street and road in the Survey Universe and conducted a reconnaissance inspection of all potential historic architectural resources.

All historic architectural resources in the Survey Universe that retained sufficient historic characteristics to be included in the South Carolina Statewide Survey (SCSS) were recorded on SCSS site forms in digital format using a Microsoft Access 2000© database application. At least one black-and-white photograph was taken of each resource. The location of each historic architectural resource was recorded on aerial maps, which are included within this report. The completed forms and photographs were prepared for the SCDAH for review.

The principal criterion used by the SCSS to define historic architectural resources is a 50- year minimum age; for this project, we considered all architectural resources built circa 1966 as historic. In addition, certain other classes of architectural resources may be documented intensively and included in the SCSS (SHPO 2013:9):

- architectural resources representative of a particular style, form of craftsmanship, method of construction, or building type
- properties associated with significant events or broad patterns in history
- properties that convey evidence of the community's historical patterns of development
- historic cemeteries and burial grounds

- historic landscapes such as parks, gardens, agricultural fields
- properties associated with the lives or activities of a person significant in local, state, or national history
- sites where ruins, foundations, or remnants of historically significant structure are present
- properties that convey evidence of significant “recent past” history

The integrity of a historic architectural resource is a primary consideration for inclusion in the SCSS, as well as on the NRHP. In order to have integrity, the SHPO (2013:4-5), following the guidelines of the NRHP, maintains that:

Such a property conveys a strong feeling of the period in history during which it achieved significance. Integrity is the composite of seven qualities: location, design, setting, materials, workmanship, feeling, and association. To have a reasonable degree of integrity, a property must possess at least several of these qualities.

1.2.3 NRHP Assessment of Cultural Resources

We assessed the significance of the 46 identified historic architectural resources encountered in the Survey Universe following the criteria of eligibility for the NRHP (36 CFR Part 60.4). In order for a resource to be eligible for the NRHP, it must meet one of the following criteria:

- A. The resource is associated with events that have made a significant contribution to the broad pattern of history
- B. The resource is associated with the lives of persons significant in the past
- C. The resource embodies distinctive characteristics of a type, period, or method of construction, or represents a significant and distinguishable entity whose components may lack individual distinction
- D. The resource has yielded, or is likely to yield, information important to history or prehistory

A resource may be eligible under one or more of these criteria. Criteria A, B, and C are most frequently applied to historic buildings, structures, objects, non-archaeological sites (e.g., natural features and designed landscapes), or districts. The eligibility of archaeological sites is most frequently considered with respect to Criterion D. Also, a general guide of 50 years of age is employed to define “historic” in the NRHP evaluation process. That is, all resources greater than 50 years of age may be considered. However, more recent resources may be considered if they display “exceptional” significance (Sherfy and Luce n.d.).

Following *National Register Bulletin: How to Apply the National Register Criteria for Evaluation* (Savage and Pope 1998:3), evaluation of any resource requires a twofold process. First, the resource must be associated with an important historic context. If this association is demonstrated, the integrity of the resource must be evaluated to ensure that it conveys the significance of its context. The application of these steps is discussed in more detail below.

Determining the association of a resource with a historic context involves five steps (Savage and Pope 1998:7). First, the resource must be associated with a particular facet of local, regional (state), or national history; examples include Mississippian Utilization of the Pee Dee River Valley, Colonial Settlement of the South Carolina Backcountry, or Antebellum Agricultural Development in the Upper Coastal Plain of South Carolina. These facets will represent the context within which any particular resource developed.

Second, one must determine the significance of the identified historical facet/context with respect to the resource under evaluation. As an example, if the Survey Universe contained no resources dating from the early nineteenth century, then the Antebellum Agricultural context noted above would not be significant for the development of the Study Area or any of its internal resources. Similarly, a lack of Native American archaeological sites within the Survey Universe would preclude the use of contexts associated with the Pre-Contact use of the region.

The third step is to demonstrate the ability of a particular resource to illustrate the context. A resource should be a component of the locales and features created or used during the historical period in ques-

tion. Early nineteenth-century plantation houses, the ruins of African American slave settlements from the 1820s, and/or field systems associated with particular antebellum plantations in the region would illustrate various aspects of the agricultural development of the region prior to the Civil War.

The fourth step involves determining the specific association of a resource with aspects of the significant historic context. Savage and Pope (1998:11-24) define how one should consider a resource under each of the four criteria of significance. Under Criterion A, a resource must have existed at the time that a particular event or pattern of events occurred, and activities associated with the event(s) must have occurred at the site. In addition, this association must be of a significant nature, not just a casual occurrence (Savage and Pope 1998:12). Under Criterion B, the resource must be associated with historically important individuals. Again, this association must relate to the period or events that convey historical significance to the individual, not just that this person was present at this locale (Savage and Pope 1998:15-16). Under Criterion C, a resource must possess physical features or traits that reflect a style, type, period, or method of construction; display high artistic value; or represent the work of a master (an individual whose work can be distinguished from others and possesses recognizable greatness) (Savage and Pope 1998:20). Under Criterion D, a resource must possess sources of information that can address specific important research questions (Savage and Pope 1998:22). These questions must generate information that is important in reconstructing or interpreting the past (Butler 1987; Townsend et al. 1993). For archaeological sites, recoverable data must be able to address specific research questions.

After a resource is specifically associated with a significant historic context, one must determine which physical features of the resource reflect its significance. One should consider the types of resources that are associated with the context, how these resources represent the theme, and which aspects of integrity apply to the resource in question (Savage and Pope 1998:8). As in the Antebellum Agriculture example given above, a variety of resources may reflect this context (farmhouses, ruins of slave settlements, field systems, etc.). One must demonstrate how these resources reflect the context.

The plantation houses represent the residences of the principal landowners who were responsible for implementing the agricultural practices that drove the economy of South Carolina during the antebellum period. The slave settlements housed the workers who conducted the vast majority of the daily activities necessary to plant, harvest, process, and market crops.

Once the above steps are completed and the association with a historically significant context is demonstrated, one must consider the aspects of integrity applicable to a resource. Integrity is defined in seven aspects of a resource; one or more may be applicable depending on the nature of the resource under evaluation. These aspects are location, design, setting, materials, workmanship, feeling, and association (Savage and Pope 1998:44). If a resource does not possess integrity with respect to these aspects, it cannot adequately reflect or represent its associated historically significant context. Therefore, it cannot be eligible for the NRHP. To be considered eligible under Criteria A and B, a resource must retain its essential physical characteristics that were present during the event(s) with which it is associated. Under Criterion C, a resource must retain enough of its physical characteristics to reflect the style, type, etc., or work of the artisan that it represents. Under Criterion D, a resource must be able to generate data that can address specific research questions that are important in reconstructing or interpreting the past.

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2.0 Natural and Cultural Setting

2.1 Natural Setting

2.1.1 Regional Overview

Topography in the region generally consists of low ridges between meandering channels of the many streams that drain the Lower Coastal Plain. The ridges consist of sandy and loamy soils; more clayey soils and sediments occur in the drainages, marshes, and swamps that border the streams. The coast above and below the Wando River estuary consists of small to large barrier islands that form part of the Sea Island Complex in South Carolina (Kovacik and Winberry 1987:24). These low islands contain sandy uplands derived from eolian and marine sediments generally dating from terminal Pleistocene or early Holocene fluctuations in sea level. Networks of salt marshes, tidal flats, and small creeks have developed between the Sea Islands and the more interior landforms (Kovacik and Winberry 1987).

A series of terraces formed by late Tertiary and Quaternary Period marine sediments characterizes the Coastal Plain. The Study Area lies on the most recent terraces (the Pamlico and the Talbot) that formed near the end of the Pleistocene Epoch (Miller 1971:70).

Although much of the area has been developed, extensive stands of maritime forest remain. Widmer (1976) presents a model of late Pre-Contact and early Contact Period vegetation patterns for the region, following major vegetation types presented by Braun (1950). Widmer's (1976) model includes six major classes:

- Pine Savannah
- Longleaf Pine Forest
- Southern Mixed Hardwood Forest
- Southern Hardwood Swamp
- Freshwater Marsh
- Tidal Marsh

Before intensive Contact settlement and agricultural modification, the Study Area probably contained a similar series of vegetation communities. General sources such as Quarterman and Keever (1962) and Shelford (1963) summarize information on floral and faunal communities for the area. Most of the

extant woodlands today are mixed pine/hardwood forests. A mixed forest supports an active faunal community, including deer and small mammals (e.g., various squirrels and mice, opossum, raccoon, rabbit, fox, skunk), birds (e.g., various songbirds, ducks and wading birds, quail, turkey, doves, hawks, owls), and reptiles/amphibians (e.g., frogs, toads, lizards, snakes, turtles, alligator). Fresh and saltwater fish are abundant in the streams and marshes of the region, and shellfish are present in large numbers in most of the tidally affected waters throughout the region.

2.1.2 Past Environments

Profound changes in climate and dependent biophysical aspects of regional environments have been documented over the last 20,000 years (the time of potential human occupation of the Southeast). Major changes include a general warming trend, melting of the large ice sheets of the Wisconsin glaciation in northern North America, and the associated rise in sea level. This sea level rise was dramatic along the South Carolina coast (Brooks et al. 1989), with an increase of as much as 100 meters (m) (328 feet [ft]) during the last 20,000 years. At 10,000 years ago (the first documented presence of human groups in the region) the ocean was located 80-160 kilometers (km) (49.6-99.4 miles) east of its present position. Unremarkable Coastal Plain flatwoods probably characterized the Study Area. Sea level steadily rose from that time until about 5,000 years ago, when the sea reached essentially modern levels. During the last 5,000 years there was a 400-500 year cycle of sea level fluctuations of about two m (6.5 ft) (Brooks et al. 1989; Colquhoun et al. 1981). Figure 2.1 summarizes recent fluctuations in the region.

As sea level rose to modern levels, it altered the gradients of major rivers and flooded near-coast river valleys, creating estuaries like the Cooper-Ashley-Wando River mouths. These estuaries became great centers for saltwater and freshwater resources and thus population centers for human groups. Such dramatic changes affected any human groups living in the region.

The general warming trend that led to the melting of glacial ice and the rise in sea level also greatly affected vegetation communities in the Southeast.

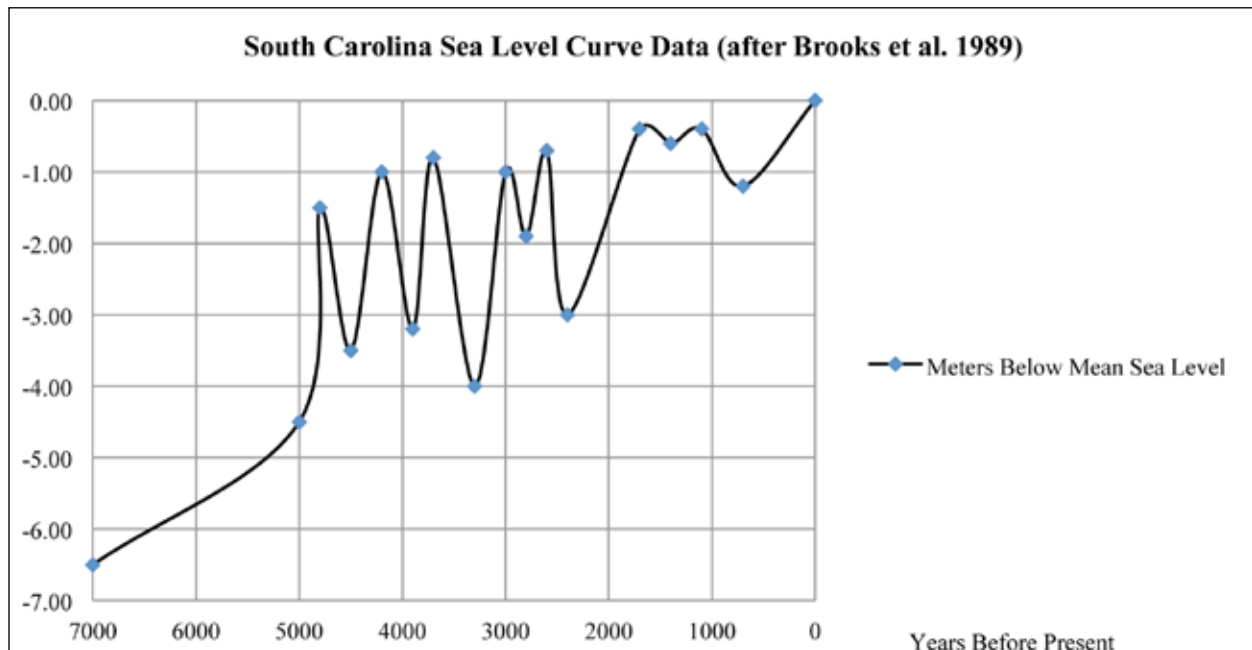


Figure 2.1 South Carolina sea level curve data (after Brooks et al. 1989).

During the late Wisconsin glacial period, until about 12,000 years ago, boreal forest dominated by pine and spruce covered most of the Southeast. This forest changed from coniferous trees to deciduous trees by 10,000 years ago. Northern hardwoods, such as beech, hemlock, and alder, dominated the new deciduous forest, with oak and hickory beginning to increase in number.

With continuation of the general warming and drying trend, oak and hickory came to dominate, along with southern species of pine; pollen data suggest that oak and hickory reached a peak at 7,000 to 5,000 years ago (Watts 1970, 1980; Whitehead 1965, 1973). Since then, the general climatic trend in the Southeast has been toward cooler and moister conditions, and the present Southern Mixed Hardwood Forest as defined by Quarterman and Keever (1962) has become established. Faunal communities also changed dramatically during this time. Several large mammal species (e.g., mammoth, mastodon, horse, camel, giant sloth) became extinct at the end of the glacial period, approximately 12,000 to 10,000 years ago. Pre-Contact human groups that had focused on hunting these large mammals readapted their strategy to exploitation of smaller mammals, primarily deer in the Southeast.

2.2 Cultural Setting

The cultural history of North America generally is divided into three eras: Pre-Contact, Contact, and Post-Contact. The Pre-Contact Era refers primarily to the Native American groups and cultures that were present for at least 10,000 to 12,000 years prior to the arrival of Europeans. The Contact Era refers to the time of exploration and initial European settlement on the continent. The Post-Contact Era refers to the time after the establishment of European settlements, when Native American populations usually were in rapid decline. Within these eras, finer temporal and cultural subdivisions have been defined to permit discussions of particular events and the lifeways of the peoples who inhabited North America at that time.

2.2.1 The Pre-Contact Era

In South Carolina, the Pre-Contact Era is divided into four stages (after Willey and Phillips 1958). These include the Lithic, Archaic, Woodland, and Mississippian. Specific technologies and strategies for procuring resources define each of these stages, with approximate temporal limits also in place. Within each stage, with the exception of the Lithic stage, there are temporal periods that are defined

on technological bases as well. A brief description of each stage follows, including discussions of the temporal periods within each stage. Readers are directed to Goodyear and Hanson (1989) for more detailed discussions of particular aspects of these stages and periods in South Carolina.

The Lithic Stage

The beginning of the human occupation of North America is unclear. For most of the twentieth century, archaeologists believed that humans arrived on the continent near the end of the last Pleistocene glaciation, termed the Wisconsinan in North America, a few centuries prior to 10,000 BC. The distinctive fluted projectile points and blade tool technology of the Paleoindians (described below) occurs throughout North America by this time. During the last few decades of the twentieth century, researchers began to encounter artifacts and deposits that predate the Paleoindian Period at a number of sites in North and South America. To date, these sites are few in number. The most notable are Meadowcroft Rock Shelter in Pennsylvania (Adovasio et al. 1990; Carlisle and Adovasio 1982), Monte Verde in Chile (Dillehay 1989, 1997; Meltzer et al. 1997), Cactus Hill in Virginia (McAvoy and McAvoy 1997), and most recently, the Topper/Big Pine Tree site in Allendale County, South Carolina (Goodyear 1999). All of these sites contain artifacts in stratigraphic locales below Paleoindian deposits. Radiocarbon dates indicate occupations at the Meadowcroft and Topper/Big Pine Tree sites that are 10,000 to 20,000 years earlier than the earliest Paleoindian occupations. Cactus Hill produced evidence of a blade technology that predates Paleoindian sites by 2,000 to 3,000 years. Monte Verde produced radiocarbon dates comparable to those at North and South American Paleoindian sites, but reflects a very different lithic technology than that evidenced at Paleoindian sites. Similarly, the lithic artifacts associated with the other pre-Paleoindian deposits discovered to-date do not display the blade technology so evident during the succeeding period. Unfortunately, the numbers of artifacts recovered from these sites are too small at present to determine if they reflect a single technology or multiple approaches to lithic tool manufacture. Additional research at these and other sites will be necessary to determine how they

relate to the better-known sites of the succeeding Paleoindian Period, and how these early sites reflect the peopling of North America and the New World.

Paleoindian Period (10,000–8000 BC). An identifiable human presence in the South Carolina Coastal Plain began about 12,000 years ago with the movement of Paleoindian hunter-gatherers into the region. Initially, the Paleoindian Period is marked by the presence of distinctive fluted projectile points and other tools manufactured on stone blades. Excavations at sites throughout North America have produced datable remains that indicate that these types of stone tools were in use by about 10,000 BC.

Goodyear et al. (1989) review the evidence for the Paleoindian occupation of South Carolina. Based on the distribution of the distinctive fluted spear points, they see the major sources of highly workable lithic raw materials as the principal determinant of Paleoindian site location, with a concentration of sites at the Fall Line possibly indicating a subsistence strategy of seasonal relocation between the Piedmont and Coastal Plain. Based on data from many sites excavated in western North America, Paleoindian groups generally were nomadic, with subsistence focusing on the hunting of large mammals, specifically the now-extinct mammoth, horse, camel, and giant bison. In the east, Paleoindians apparently hunted smaller animals than their western counterparts, although extinct species (such as bison, caribou, and mastodon) were routinely exploited where present. Paleoindian groups were probably small, kin-based bands of 50 or fewer persons. As the environment changed at the end of the Wisconsinan glaciation, Paleoindian groups had to adapt to new forest conditions in the Southeast and throughout North America.

The Archaic Stage

The Archaic stage represents the adaptation of Southeastern Native Americans to Holocene environments. By 8000 BC, the forests had changed from sub-boreal types common during the Paleoindian Period to more modern types. The Archaic stage is divided into three temporal periods: Early, Middle, and Late. Distinctive projectile point types serve as markers for each of these periods. Hunting and gathering was the predominant subsistence mode

throughout the Archaic periods, although incipient use of cultigens probably occurred by the Late Archaic period. Also, the terminal Archaic witnessed the introduction of a new technology, namely, the manufacture and use of pottery.

Early Archaic Period (8000–6000 BC). The Early Archaic corresponds to the adaptation of native groups to Holocene conditions. The environment in coastal South Carolina during this period was still colder and moister than at present, and an oak-hickory forest was establishing itself on the Coastal Plain (Watts 1970, 1980; Whitehead 1965, 1973). The megafauna of the Pleistocene became extinct early in this period, and more typically modern woodland flora and fauna were established. The Early Archaic adaptation in the South Carolina Lower Coastal Plain is not clear, as Anderson and Logan (1981:13) report:

At the present, very little is known about Early Archaic site distribution, although there is some suggestion that sites tend to occur along river terraces, with a decrease in occurrence away from this zone.

Early Archaic finds in the Lower Coastal Plain are typically corner- or side-notched projectile points, determined to be Early Archaic through excavation of sites in other areas of the Southeast (Claggett and Cable 1982; Coe 1964). Generally, Early Archaic sites are small, indicating a high degree of mobility.

Archaic groups probably moved within a regular territory on a seasonal basis; exploitation of wild plant and animal resources was well planned and scheduled. Anderson and Hanson (1988) developed a settlement model for the Early Archaic Period (8,000–6,000 BC) in South Carolina involving movement of relatively small groups (bands) on a seasonal basis within major river drainages. The Charleston region is located within the range of the Saluda/Broad band. Anderson and Hanson (1988) hypothesize that Early Archaic use of the Lower Coastal Plain was limited to seasonal (springtime) foraging camps and logistic camps. Aggregation camps and winter base camps are suggested to have been near the Fall Line.

Middle and Preceramic Late Archaic Period (6000–2500 BC). The trends initiated in the Early Archaic, i.e., increased population and adaptation to local environments, continued through the Middle Archaic and Preceramic Late Archaic. Climatically, the region was still warming, and an oak-hickory forest dominated the coast until after 3000 BC, when pines became more prevalent (Watts 1970, 1980). Stemmed projectile points and ground stone artifacts characterize this period, and sites increased in size and density through the period.

Blanton and Sassaman (1989) recently reviewed the archaeological literature on the Middle Archaic period. They document an increased simplification of lithic technology during this period, with increased use of expedient, situational tools. Furthermore, they argue that the use of local lithic raw materials is characteristic of the Middle and Late Archaic Periods. Blanton and Sassaman (1989:68) conclude that “the data at hand suggest that Middle Archaic populations resorted to a pattern of adaptive flexibility as a response to ‘mid-Holocene environmental conditions such as variable precipitation, sea level rise, and differential vegetational succession.’ These processes resulted in changes in the types of resources available from year to year.

Ceramic Late Archaic Period (2500–1000 BC). By the end of the Late Archaic period, two developments occurred that changed human lifeways on the South Carolina Coastal Plain. Sea level rose to within one meter of present levels and the extensive estuaries now present were established (Colquhoun et al. 1981). These estuaries were a reliable source of shellfish, and the Ceramic Late Archaic period saw the first documented emphasis on shellfish exploitation. During the Late Archaic, “the first extensive evidence of significant human occupations appear on the coast. Late Archaic coastal sites vary from isolated finds, small camps, and minor middens to large amorphous shell middens” (Russo 2002:E9). It was also during this time that the first pottery appeared on the South Carolina coast. In the project region, this pottery is represented by the fiber-tempered Stallings series and the sand-tempered or untempered Thom’s Creek series. Decorations include punctation, incising, finger pinching, and simple stamping. The ceramic sequence for the central coast of South Carolina is presented in Table 2.1.

Table 2.1 Ceramic sequence for the central South Carolina coast.

Period/Era	Date	Ceramic Types
Contact	AD 1550-1715	Ashley Burnished Plain, Complicated Stamped, Cob Marked, Line Block Stamped
Late Mississippian	AD 1400-1550	Pee Dee Burnished Plain, Complicated Stamped, Incised
Early Mississippian	AD 1100-1400	Savannah/Jeremy Burnished Plain, Check Stamped, Complicated Stamped
Late Woodland	AD 900-1100	St. Catherines Cord Marked, Fabric Impressed, Net Impressed McClellanville Cord Marked, Fabric Impressed Santee Simple Stamped Wando Check Stamped, Cord Marked, Fabric Impressed, Simple Stamped Wilmington Cord Marked
	AD 500-900	Deptford Cord Marked, Fabric Impressed McClellanville Cord Marked, Fabric Impressed Wando Check Stamped, Cord Marked, Fabric Impressed, Simple Stamped Wilmington Cord Marked, Fabric Impressed, Plain
Middle Woodland	AD 200-500	Wilmington Check Stamped, Cord Marked, Fabric Impressed, Plain Deptford Brushed, Check Stamped, Cord Marked, Fabric Impressed, Plain
	200 BC-AD 200	Deptford Brushed, Check Stamped, Simple Stamped, Plain
Early Woodland	1000-200 BC	Deptford Brushed, Check Stamped, Simple Stamped, Plain
	1500-1000 BC	Refuge Dentate Stamped, Incised, Punctate, Simple Stamped, Plain
Ceramic Late Archaic	2500-1000 BC	Thom's Creek Drag and Jab Punctate, Finger Pinched, Incised, Simple Stamped, Plain Stallings Drag and Jab Punctate, Finger Pinched, Incised, Simple Stamped, Plain

The best-known Ceramic Late Archaic–Period sites are shell rings, which occur frequently along tidal marshes. “Preceding the Woodland and Mississippian mound-building periods by thousands of years, shell rings are among the earliest large-scale architectural features found in the United States” (Russo 2002:E8). These are usually round or oval rings of shell and other artifacts, with a relatively sterile area in the center. Today, many of these rings are in tidal marsh waters. “In areas where the use of shell rings was a tradition, ring builders deposited the shells in circular and semi-circular piles ranging in size from 30 to 250 meters in diameter and one to six meters in height” (Russo 2002:E9). Russo (2002:E53) summarizes three commonly accepted theories for the function of shell rings:

In terms of the place of shell rings in the larger pattern of settlement, other non-ring sites associated with shell rings are not well known. One model suggests that amorphous middens represent base camps, while shell rings served as communal cen-

ters (Michie 1979). Another suggests that shell rings were the base camps or villages of Thoms Creek coastal settlement (Trinkley 1980:312). A third suggests that shell rings may represent both villages and ceremonial centers, and it is up to the archeologist to figure out the function of each shell ring empirically rather than typologically (Russo 2004).

Brockington’s archaeological investigations at 38CH1781, near the Lighthouse Point Shell Ring (38CH12) on James Island, supports Russo’s (2004) idea that shell rings represent both villages and ceremonial centers (Baluha and Poplin 2005). Regardless, these sites attest to a high degree of sedentism, at least seasonally, by Ceramic Late Archaic peoples.

The Woodland Stage

The Woodland stage is marked by the widespread use of pottery, with many new and regionally diverse types appearing with changes in the strategies and approaches to hunting and gathering. Native Americans appear to be living in smaller groups

than during the preceding Ceramic Late Archaic period, but the overall population likely increased. The Woodland is divided into three temporal Periods (Early, Middle, and Late), marked by distinctive pottery types. Also, there is an interval when Ceramic Late Archaic ceramic types and Early Woodland ceramic types were being manufactured at the same time, often on the same site (see Espenshade and Brockington 1989). It is unclear at present if these coeval types represent distinct individual populations, some of whom continued to practice Archaic lifeways, or technological concepts that lingered in some areas longer than in others.

Early Woodland Period (1500 BC–AD 200). In the Early Woodland Period, the region was apparently an area of interaction between widespread ceramic decorative and manufacturing traditions. The paddle-stamping tradition dominated the decorative tradition to the south, and fabric impressing and cord marking dominated to the north and west (Blanton et al. 1986; Caldwell 1958; Espenshade and Brockington 1989).

The subsistence and settlement patterns of the Early Woodland Period suggest population expansion and the movement of groups into areas minimally used in the earlier periods. Early and Middle Woodland sites are the most common on the South Carolina coast and generally consist of shell middens near tidal marshes, along with ceramic and lithic scatters in a variety of other environmental zones. It appears that group organization during this period was based on the semi-permanent occupation of shell midden sites, with the short-term use of interior coastal strand sites.

Middle Woodland Period (200 BC–AD 500). The extreme sea level fluctuations that marked the Ceramic Late Archaic and Early Woodland Periods ceased during the Middle Woodland Period. The Middle Woodland Period began as sea level rose from a significant low stand at 300 BC, and for the majority of the period, the sea level remained within one meter of current levels (Brooks et al. 1989). The comments of Brooks et al. (1989:95) are pertinent in describing the changes in settlement:

It is apparent that a generally rising sea level, and corresponding estuarine expansion, caused

an increased dispersion of some resources (e.g., small inter-tidal oyster beds in the expanding tidal creek network...). This hypothesized change in the structure of the subsistence resource base may partially explain why these sites tend to be correspondingly smaller, more numerous, and more dispersed through time.

Survey and testing data from a number of sites in the region clearly indicate that Middle Woodland Period sites are the most frequently encountered throughout the region. These sites include small, single-house shell middens, larger shell middens, and a wide variety of shell-less sites of varying size and density in the interior. The present data from the region suggest seasonal mobility, with certain locations revisited on a regular basis (e.g., 38GE46 [Espenshade and Brockington 1989]). Subsistence remains indicate that oysters and estuarine fish were major faunal contributors, while hickory nut and acorn have been recovered from ethnobotanical samples (Drucker and Jackson 1984; Espenshade and Brockington 1989; Trinkley 1976, 1980).

The Middle Woodland Period witnessed increased regional interaction and saw the incorporation of extralocal ceramic decorative modes into the established Deptford technological tradition. As Caldwell (1958) first suggested, the period saw the expansion and subsequent interaction of groups of different regional traditions (Espenshade 1986, 1990).

Late Woodland Period (AD 500–1100). The nature of Late Woodland adaptation in the region is unclear due to a general lack of excavations of Late Woodland components, but Trinkley (1989:84) offers this summary:

In many respects the South Carolina Late Woodland may be characterized as a continuation of previous Middle Woodland cultural assemblages. While outside the Carolinas there were major cultural changes, such as the continued development and elaboration of agriculture, the Carolina groups settled into a lifeway not appreciably different from that observed for the past 500 to 700 years.

The Late Woodland represents the most stable Pre-Contact Period in terms of sea level change, with sea level for the entire period between 0.4 and

0.6 meters below the present high marsh surface (Brooks et al. 1989). It would be expected that this general stability in climate and sea level would result in a well-entrenched settlement pattern, but the data are not available to address this expectation. In fact, the interpretation of Late Woodland adaptations in the region has been somewhat hindered by past typological problems.

Overall, the Late Woodland is noteworthy for its lack of check-stamped pottery. However, recent investigations by Poplin et al. (2002) indicate that the limestone-tempered Wando series found along the Wando and Cooper Rivers near Charleston Harbor displays all of the Middle Woodland decorative elements, including check stamping, but appears to have been manufactured between AD 700 and 1200. Excavations at the Buck Hall Site (38CH644) in the Francis Marion National Forest suggest that McClellanville and Santee ceramic types were employed between AD 500 and 900, and represent the dominant ceramic assemblages of this period (Cable et al. 1991; Poplin et al. 1993).

The sea level change at this time caused major shifts in settlement and subsistence patterns. The rising sea level and estuary expansion caused an increase in the dispersal of resources such as oyster beds, and thus a corresponding increase in the dispersal of sites. Semi-permanent shell midden sites continue to be common in this period, although overall site frequency appears to be lower than in the Early Woodland. Instead, there appears to be an increase in short-term occupations along the tidal marshes. Espenshade et al. (1994) state that at many of the sites postdating the Early Woodland Period, the intact shell deposits appear to represent short-term activity areas rather than permanent or semi-permanent habitations.

The Mississippian Stage

Approximately 1,000 years ago, Native American cultures in much of the Southeast began a marked shift away from the settlement and subsistence practices common during the Woodland Periods. Some settlements became quite large, often incorporating temple mounds or plazas. The use of tropical cultigens (e.g., corn and beans) became more common. Hierarchical societies developed, and technological, decorative, and presumably religious ideas spread throughout the Southeast, supplanting what had been distinct

regional traditions in many areas. In coastal South Carolina, the Mississippian stage is divided into two temporal periods, Early and Late. Previous sequences for the region separated Mississippian ceramic types into three periods (Early, Middle, and Late), following sequences developed in other portions of the Southeast. However, a simpler characterization of the technological advancements made from AD 1000 to 1500 appears more appropriate. During these centuries, the decorative techniques that characterize the Early Mississippian period slowly evolved without the appearance of distinctly new ceramic types until the Late Mississippian.

Early Mississippian Period (AD 1100–1400). In much of the Southeast, the Mississippian stage is marked by major mound ceremonialism, regional redistribution of goods, chiefdoms, and maize horticulture as a major subsistence activity. It is unclear how early and to what extent similar developments occurred in coastal South Carolina. The ethnohistoric record, discussed in greater detail below, certainly indicates that seasonal villages and maize horticulture were present in the area, and that significant mound centers were present in the interior Coastal Plain to the north and west (Anderson 1989; DePratter 1989; Ferguson 1971, 1975).

Distinct Mississippian ceramic phases are recognized for the region (Anderson et al. 1982; Anderson 1989). In coastal South Carolina, the Early Mississippian period is marked by the presence of Jeremy-phase (AD 1100–1400) ceramics, including Savannah Complicated Stamped, Savannah Check Stamped, and Mississippian Burnished Plain types. By the end of the Late Woodland Period, cord-marked and fabric-impressed decorations are replaced by complicated stamped decorations. Anderson (1989:115) notes, “characteristically, Mississippian complicated stamped ceramics do not appear until at least AD 1100, and probably not until as late as AD 1200, over much of the South Carolina area.” Poplin et al.’s (1993) excavations at the Buck Hall Site (38CH644) produced radiocarbon dates around AD 1000 for complicated stamped ceramics similar to the Savannah series. This represents the earliest date for complicated stamped wares in the region and may indicate an earlier appearance of Mississippian types than previously assumed.

Sites of the period in the region include shell middens, sites with apparent multiple- and single-house shell middens, and oyster processing sites (e.g., 38CH644 [Poplin et al. 1993]). Adaptation during this period apparently saw a continuation of the generalized Woodland hunting-gathering-fishing economy, with perhaps a growing importance on horticulture and storable foodstuffs. Anderson (1989) suggests that environmental unpredictability premised the organization of hierarchical chiefdoms in the Southeast beginning in the Early Mississippian period; the redistribution of stored goods (i.e., tribute) probably played an important role in the Mississippian social system. Maize was recovered from a feature suggested to date to the Early Mississippian period from 38BK226, near St. Stephen (Anderson et al. 1982:346).

Late Mississippian Period (AD 1400–1550). During this period, the regional chiefdoms apparently realigned, shifting away from the Savannah River centers to those located in the Oconee River basin and the Wateree-Congaree basin. As in the Early Mississippian, the Charleston Harbor area apparently lacked any mound centers, although a large Mississippian settlement was present on the Ashley River that may have been a “moundless” ceremonial center (South 2002). Regardless, it appears that the region was well removed from the core of Cofitachequi, the primary chiefdom to the interior (Anderson 1989; DePratter 1989). DePratter (1989:150) specifies:

The absence of sixteenth-century mound sites in the upper Santee River valley would seem to indicate that there were no large population centers there. Any attempt to extend the limits of Cofitachequi even farther south and southeast to the coast is pure speculation that goes counter to the sparse evidence available.

Pee Dee Incised and Complicated Stamped, Irene Incised and Complicated Stamped, and Mississippian Burnished Plain ceramics mark the Late Mississippian period. Simple-stamped, cord-marked, and check-stamped pottery apparently was not produced in this period.

2.2.2 The Contact Era

The Contact Era begins in South Carolina with the first Spanish explorations into the region in the 1520s. Native American groups encountered by the European explorers and settlers probably were living in a manner quite similar to the late Pre-Contact Mississippian groups identified in archaeological sites throughout the Southeast. Indeed, the highly structured Native American society of Cofitachequi, formerly located in central South Carolina and visited by De Soto in 1540, represents an excellent example of the Mississippian social organizations present throughout southeastern North America during the late Pre-Contact Period (Anderson 1985). However, the initial European forays into the Southeast contributed to the disintegration and collapse of the aboriginal Mississippian social structures; disease, warfare, and European slave raids all contributed to the rapid decline of the regional Native American populations during the sixteenth century (Dobyns 1983; Ramenofsky 1982; Smith 1984). By the late seventeenth century, Native American groups in coastal South Carolina apparently lived in small, politically and socially autonomous, semi-sedentary groups (Waddell 1980). By the middle eighteenth century, very few Native Americans remained in the region; all had been displaced or annihilated by the ever-expanding English colonial settlement of the Carolinas (Bull 1770 cited in Anderson and Logan 1981:24-25).

The ethnohistoric record from coastal South Carolina suggests that the Contact-Era groups of the region followed a seasonal pattern that included summer aggregation in villages for planting and harvesting domesticates, and dispersal into one- to three-family settlements for the remainder of the year (Rogel 1570 [in Waddell 1980:147-151]). This coastal adaptation is apparently very similar to the Guale pattern of the Georgia coast, as reconstructed by Crook (1986:18). Specific accounts of the Contact-Era groups of the region, the Sewee and the Santee, have been summarized by Waddell (1980). It appears that both groups included horticultural production within their seasonal round, but did not have permanent, year-round villages. Trinkley (1981) suggests that Sewee groups produced a late variety of Pee Dee ceramics in the region; this late variety may correspond to the Ashley ware initially

described by South (1973, 2002; see also Anderson et al. 1982). Recent excavations at 38BK1633 on Daniel Island (Lansdell et al. 2008) exposed the remnants of a Contact-Era hamlet or farmstead. Ashley Complicated Stamped, Cob Marked, and Line Block Stamped ceramics dominate the assemblage. The site contains portions of three separate houses, a probable corncrib, and large fire/refuse pits. Substantial volumes of animal bone and ethnobotanical remains occur in these pits, including charred corncobs and peach pits.

Waddell (1980) identified 19 distinct groups between the mouth of the Santee River and the mouth of the Savannah River in the middle of the sixteenth century. Anderson and Logan (1981:29) suggest that many of these groups probably were controlled by Cofitachequi, the dominant Mississippian center/polity in South Carolina, prior to its collapse. By the seventeenth century, all were independently organized. These groups included the Coosaw, Kiawah, Etiwan, and Sewee “tribes” near the Charleston peninsula. The Coosaw inhabited the area to the north and west along the Ashley River. The Kiawah were apparently residing at Albemarle Point and along the lower reaches of the Ashley River in 1670, but gave their settlement to the English colonists and moved to Kiawah Island; in the early eighteenth century they moved south of Combahee River (Swanton 1952:96). The Etiwans were mainly settled on or near Daniel Island to the northeast of Charleston, but their range extended to the head of the Cooper River. The territory of the Sewee met the territory of the Etiwan high up the Cooper and extended to the north as far as the Santee River (Orvin 1973:14). Mortier’s map of Carolina, prepared in 1696, shows the Sampas (Sompá) between the Cooper and Wando rivers, to the northeast of Daniel Island, and the Wando tribe and Sewel [*sic*] tribe fort east of the Wando River, northeast of Daniel Island (St. Thomas Isle).

2.2.3 The Post-Contact Era

Spanish exploration on the South Carolina coast began as early as 1514, and a landing party went ashore in the Port Royal vicinity (now Beaufort County) in 1520 at a spot they named Santa Elena (Hoffman 1983:64; Rowland et al. 1996). From that time on, the Port Royal area was of great interest to the Spanish, French, and Eng-

lish. This was not a permanent settlement, however. The first Spanish attempt at a permanent settlement on the South Carolina coast, in 1526, was San Miguel de Gualdape. It appears to have been in the Winyah Bay area, near Georgetown (Quattlebaum 1956). The French, under Jean Ribault, also attempted to establish a settlement on the South Carolina coast in 1562. This settlement, on Parris Island, was called Charlesfort, and was also unsuccessful.

French presence on the South Carolina coast drew the Spanish back to protect their original interest. Spanish forces attacked Charlesfort, but found it abandoned, and established their own settlement of Santa Elena in 1566. Recent archaeological evidence indicates that the Spanish built their new settlement of Santa Elena on top of the destroyed French settlement (DePratter et al. 1997). The Cusabo, a local tribe, were less than friendly, but despite numerous attacks and several burnings, the Spanish settlers did not abandon Santa Elena until 1587 (Lyon 1984). The Spanish maintained their interest in Santa Elena as part of a series of missions on the Sea Islands from St. Augustine, Florida, through Georgia and into South Carolina; Spanish friars were at “St. Ellens” when William Hilton visited the area in 1663 (Covington 1978:8-9; Hilton 1664). During its 20-year existence, Santa Elena served as the base for the first serious explorations into the interior of the state.

Colonial Period (1670–1783)

European colonization of South Carolina began with temporary Spanish and French settlements in the sixteenth century. These settlements were in the Beaufort area at the southern end of the coast. The English, however, were the first Europeans to establish permanent colonies. In 1663, King Charles II made a proprietary grant to a group of powerful English courtiers who had supported his return to the throne in 1660 and who sought to profit from the sale of the new lands. These Lords Proprietors, including Sir John Colleton, Sir William Berkeley, and Sir Anthony Ashley Cooper, provided the basic rules of governance for the new colony. They also sought to encourage settlers, many of whom came from the overcrowded island of Barbados in the early years. These Englishmen from Barbados first settled at Albemarle Point on the west bank of the Ashley River in 1670. By 1680, they moved their town down the river

to Oyster Point, the present location of Charleston, and called it Charles Towne. These initial settlers, and more who followed them, quickly spread along the central South Carolina coast. By the second decade of the eighteenth century, they had established settlements from the Port Royal Harbor in Beaufort County northward to the Santee River in Georgetown County. These early settlements included Goose Creek and the Study Area.

The Church Act of 1706 established the parish as the local unit of government. Counties or districts within Carolina were divided into parishes, with the local church serving as the administrative center. The Study Area is located in a region where several parishes meet: St. Philip and St. Michaels; St. James, Goose Creek; St. George, Dorchester; and St. Andrews parishes.

Some of the earliest economic development of the region focused on the Indian trade. Early Indian trader Dr. Henry Woodward mentions that Maurice Mathews had opened trade from Fair Lawn, near Moncks Corner, by July 1678 (Fagg 1970). This was north of the Study Area, farther up the Cooper River. Figure 2.2 presents a portion of a circa 1696 map showing only scattered settlements in or near the Study Area. However, agricultural industries soon replaced the fur and skin trade in the region. Trade with the Indians was pursued aggressively through the beginning of the eighteenth century, but by 1716, conflicts with the Europeans and disease had drastically reduced the local native population. Trade with the interior Catawba and Cherokee would continue throughout the eighteenth century. The importance of rivers for the early trade of the colony is ably demonstrated by cuts the colonists made to circumvent oxbows, as in the Cooper River or cuts through low areas such as through the Wappoo Creek near James Island to link the Stono and the Ashley rivers. These cuts made traffic on the rivers quicker and more efficient.

Settlers also took advantage of the extensive woodlands of the region, harvesting the timber cleared from the land for the production of naval stores. Lumber, tar, turpentine, and resin all were produced from the forests cleared for agricultural lands (Gregorie 1961:20; Orvin 1973). Evidence of these harvesting activities includes many small circular tar kilns, found throughout the region (Hart 1986). The lumber industry continued to be very

important in the economy of the Charleston area, even to the present day.

Another one of the important commercial ventures in the early settlements of the Lowcountry was the raising of cattle. The climate in South Carolina allowed year-round grazing, and the many necks of land surrounded by rivers and creeks along the coast provided naturally bounded cow pens and allowed the cattle to range freely. Additionally, cattle ranching was a low-capital industry with a natural market in the West Indies. Cattle ranching in South Carolina began in the late seventeenth century in the Charleston area, and by the early eighteenth century it had extended into what is now Colleton County, between the Edisto and Combahee rivers (Rowland et al. 1996:85-88).

The colony's early settlements grew slowly, and despite its geographic spread, the South Carolina Lowcountry contained only around 5,000 European and African inhabitants in 1700. Many of the early settlements and plantations in the Carolina colony focused on the Cooper and Wando Rivers. Areas adjacent to the rivers provided the best opportunity for profitable agricultural production, and the rivers were the best avenues of transportation to Charleston or other settlements in the region (South and Hartley 1985). Interior tracts also were opened as timber harvesting cleared more lands.

Large purchases of land throughout the Lowcountry, for agriculture and for cattle pasturage, created problems between the white settlers and the Yamasee Indians, whose lands were steadily and rapidly encroached upon. Angered by a combination of mistreatment from traders and encroachments on their land, the Yamasee-led Indian coalition attacked the colonists in the Yamasee War in 1715, but did not succeed in dislodging them (Covington 1978:12). While the Yamasee staged a number of successful raids through the 1720s, by 1728, British destruction of their villages in Spanish Florida secured the frontier and made the area more accessible for renewed white settlement.

The capacity of the Lords Proprietors to govern the colony effectively declined in the early years of the eighteenth century. Governance under the Lords Proprietors became increasingly arbitrary, while wars with Indians arose and the colonial currency went into steep depreciation. According to a

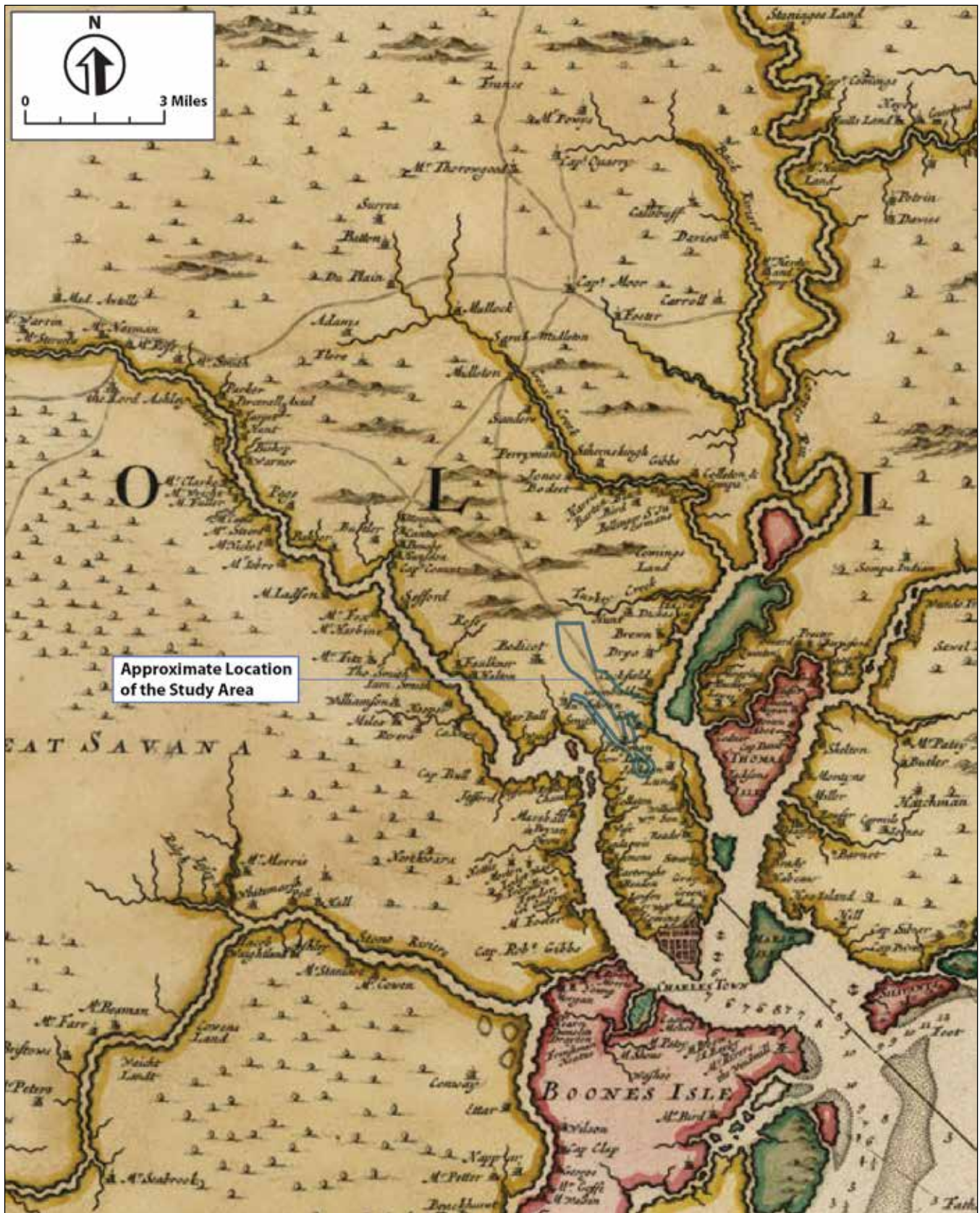


Figure 2.2 A portion of Mortier's (1696) map of South Carolina showing the approximate location of the Study Area.

historian of colonial South Carolina, “proprietary attitudes and behavior...convinced many of the dissenters—who at one time had composed the most loyal faction—that the crown was a more reliable source of protection against arbitrary rule” (Weir 1983:94). South Carolina’s legislature sent a petition to Parliament in 1719, requesting that royal rule supplant that of the Lords Proprietors. After several years in limbo, South Carolinians received a degree of certainty in 1729 when the crown purchased the Proprietors’ interests, and in 1730, when the new royal governor, Robert Johnson, arrived in the colony. Johnson arrived with a plan to create townships throughout the colony as a way to ensure the orderly settlement of the backcountry. His scheme originally included nine townships, primarily along the major rivers in the colony. Johnson permitted the settlement of these areas on the headright system, which apportioned 50 acres of land to every individual who settled there. Many of these settlers established plantations that were directed toward the production of cash crops. Main plantation residences and facilities were established on the low bluffs of the rivers and readily accessible river landings.

Although the early colonists considered the soils on either side of the Ashley River unfavorable for agriculture, the direct access to Charleston provided by the river made the area desirable for settlement by some of the wealthiest people in the region. The settlements typically were located on bluffs within a few hundred yards of the river. A map (Figure 2.3) of the region shows the grand plantation settlements that existed along the banks of the Ashley and Cooper rivers from the early 1700s to the end of the Civil War.

With the rapidly increasing wealth in the South Carolina Lowcountry, and with the Yamasee War largely behind them, the population began to swell. By 1730, the colony had 30,000 residents, at least half of whom were black slaves. A 1755 magazine cited by Peter Wood estimates that by 1723, South Carolina residents had imported over 32,000 slaves (Wood 1974). The growing population and particularly the growing black majority in the Lowcountry increased pressure for territorial expansion. Fears of a slave rebellion as well as fears of attack from the Indians led Charles Towne residents to encourage settlement in the backcountry.

Although the earliest South Carolina economy centered on naval stores and the skin and slave trade with the Native Americans, by the end of the seventeenth century the colonists had begun to experiment with rice cultivation. Rice became the most profitable and stable commodity of the region during the eighteenth century. Lowcountry plantation owners constructed elaborate dams and irrigation systems for the rice fields. Slaves were brought from western Africa to perform the many tasks necessary to produce cash crops on the plantations. Slave labor was especially essential for rice production, with knowledgeable slaves (i.e., those taken from African rice-producing societies) conducting (and directing) most of the activities associated with rice growing and harvesting (Joyner 1984). The many freshwater, lowland swamps in the Charles Towne area proved tillable, and production for export increased rapidly. By 1715, Charles Towne exported more than 8,000 barrels of rice annually; this number increased to 40,000 by the 1730s.

Indigo was cultivated intensively as a cash crop between 1741 and 1776 (Pinckney 1976). The indigo crop was prized for the dye that was extracted from it. The dye was used in expensive linen and silk cloth; most particularly, the dye was desirable for the dark blue color used in wool military uniforms (Lawson 1972:3). The British government, dependent on French colonies for this dye, began heavily subsidizing the crop in America in 1748. Unfortunately for the Carolinians, however, the Revolutionary War ended the bounty on indigo, making it unprofitable (Lawson 1972).

Both indigo and rice were labor-intensive, laying the basis for South Carolina’s dependence on African slave labor, much as sugar had done in the West Indies and tobacco had done in the Chesapeake Bay area (Coclanis 1989; Wood 1974). Many plantation owners used their available slave labor to manufacture brick. The proper clay for brick making existed on many plantations along the banks of the Cooper, Wando, and Ashley Rivers. Bricks were needed locally for the construction of plantation buildings, as well as for the planters’ townhouses in Charleston. The brickyards usually were located near boat landings, as the rivers provided a suitable means of transportation to Charleston. The Charleston brick market expanded dramatically in the

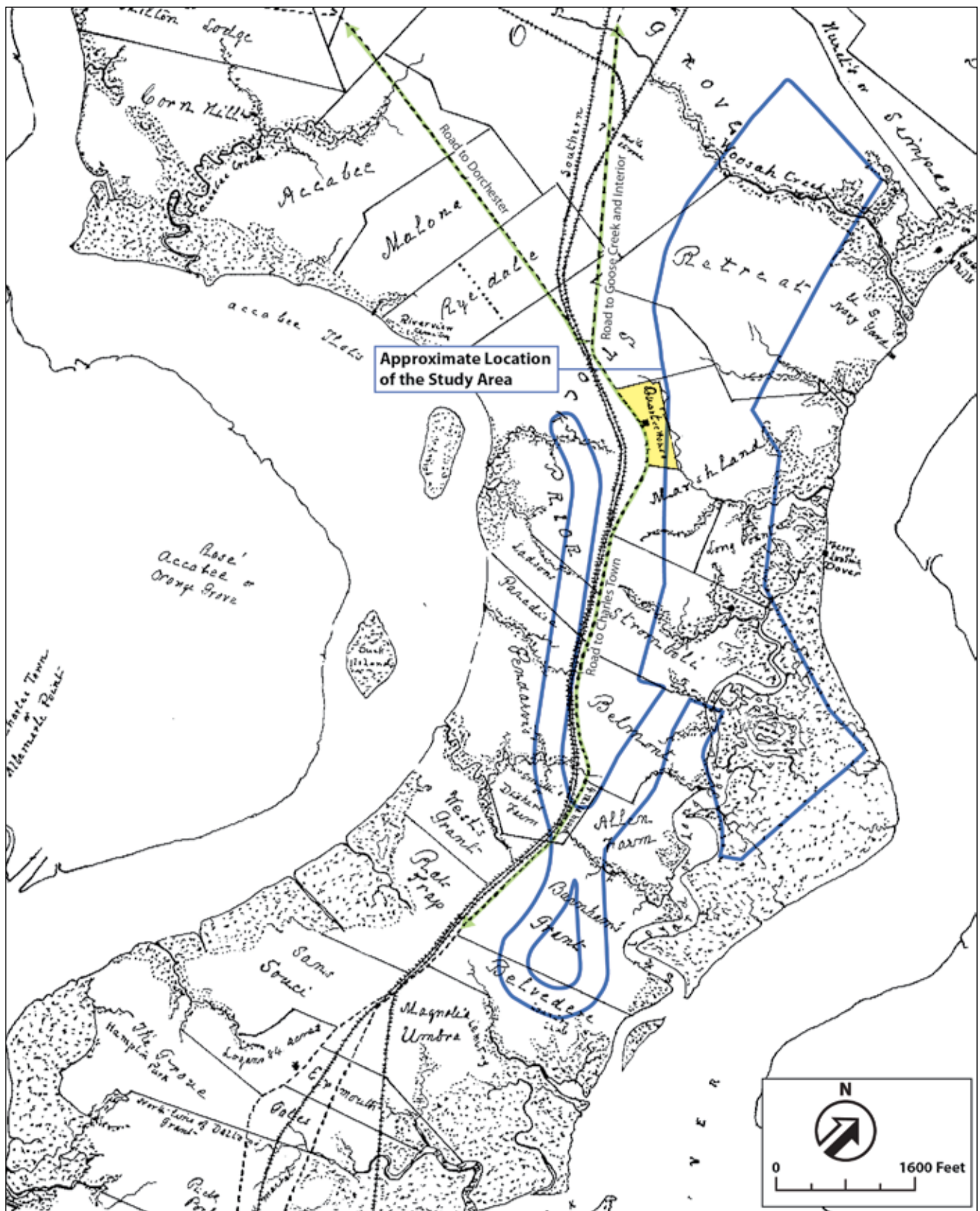


Figure 2.3 A map of the region shows the grand plantation settlements that existed around the time of the American Revolution (Smith 1988).

1740s, when the local building code was changed to require all new construction to use fireproof materials. In most instances, at least one brickyard was maintained on large Lowcountry rice plantations (Wayne 1992:114).

Planters such as the Hamlins, on the neck of Charleston, tended to augment their planting with tending taverns or inns, since most travelers approaching Charleston from the north and west traveled Goose Creek Road or Dorchester Road. The Quarter House Tavern was located only about 275 m (300 yards) west of the Study Area and served travelers beginning in the early 1700s (Smith 1988:65). As early as 1720, the location and tavern thereon was mentioned in the deeds (Charleston County Deed Books [CCDB] H:211). Smith (1988) notes that the tavern may have been used to quarter militia in the early days of the colony, hence the name, Quarter House. However, he was never certain of the derivation of its name, and other local residents claimed it was so called because it was one quarter of the way to Dorchester Town (Smith 1988:65-66). Figure 2.3 shows the location of the Quarter House and the Study Area about the time of the American Revolution in 1776.

The early history of the City of Charleston and its physical development may be found in a number of published works, from the succinct delineations of various neighborhoods provided in Hudgins (1994) and Stoney (1990), to the historical narratives written by Rogers (1980) and Fraser (1989), and the extensive studies of the East Side by Rosengarten (1987) and Grimes and Zierden (1988). The following overview of Charleston's early history synthesizes these earlier works.

By 1704, Charleston had become a walled port, bounded on the west by Meeting Street, on the south by Water Street, on the north by Cumberland Street, and on the east by the waters, creeks, and marshes of the Cooper River. The walls were partially destroyed by hurricanes in 1713 and 1714 and were dismantled (in 1717 or 1718) after the successful conclusion of the Yamasee Indian War (Coclanis 1989:5, 179-180; Rogers 1980:56). In 1739, the town line was moved northward to the vicinity of present-day Beaufain and Hasell Streets. By the next year, the city's population had increased 500 percent since 1700, and its areal size had almost doubled.

The number of wharves along the Cooper River, or "bridges" as they were called locally, had increased from two in 1704 to eight in 1740.

The city's first suburb was developed in 1747. Ansonborough was named for British Navy commander George Anson, who served on the Carolina Station from 1724-1735. Anson acquired the land in 1726. By the mid-1760s, this area was well-established as a middle-class neighborhood from Hasell Street northward to George Street. In 1769, the suburb's northern boundary—and ultimately that of the city until the mid-nineteenth century—was established by the creation of Boundary Street. This new avenue was 70 feet wide, just two feet narrower than Broad Street, the city's widest boulevard. Boundary Street (presently Calhoun Street) ran from the "Broad Path," or present-day King Street, east to Scarborough (now Anson) Street.

In the 1760s, two smaller subdivisions were opened adjacent to Ansonborough, toward the river and to the north and east, but still south of Boundary Street. These were the lands of Henry Laurens (on the south) and Christopher Gadsden (on the north). Boundary Creek flowed eastward into the Cooper River from the foot of Boundary Street and north of Gadsden's property; marsh cut into the peninsula as far as the eastern end of the hornwork and present-day Meeting Street. Beyond Boundary Creek lay the area known as the Charleston "Neck," a term which had come to identify the peninsula north of the burgeoning city. [NOTE: The term now refers to the area much farther north between Heriot Street and the North Charleston city line. In this discussion, the term *Neck* will be used in its historic context to define the area north of Calhoun Street].

A wide band of property stretching from river to river, and between present-day Calhoun and Line streets, had been granted to Richard Cole in the earliest years of the settlement. In 1677, this tract was re-granted to Richard Batten. It was subsequently subdivided, with a large portion east of the "Broad Path" becoming the property of the Wragg family. Another section, just across Boundary Creek from Ansonborough and Gadsden's Middlesex development, was the property of the Mazycks. The Village of Hampstead, a block of land belonging to Henry Laurens, was located along Town Creek just beyond present-day Mary Street. In the late 1760s, Laurens

attempted to develop the area along the lines of an English village, but the project failed to grow. Thus, the countryside that characterized the Neck immediately above present Calhoun Street and lands farther north was open, thinly populated, pasture land for most of the eighteenth century.

The Revolutionary War

The American colonies declared their independence from Britain in 1776, following several years of increasing tension due to unfair taxation and trade restrictions imposed on them by the British Parliament. South Carolinians were divided during the war, although most citizens ultimately supported the American cause. Those individuals who remained loyal to the British government tended to reside in Charleston or in certain enclaves within the interior of the province.

Britain's Royal Navy attacked Fort Sullivan (later renamed Fort Moultrie) near Charleston in 1776. The British failed to take the fort, and the defeat bolstered the morale of American revolutionaries throughout the colonies. The British military then turned their attention northward. They returned in 1778, however, besieging and capturing Savannah late in December. A major British expeditionary force landed on Seabrook Island in the winter of 1780, and then marched north and east to invade Charleston from its landward approaches (Lumpkin 1981:42-46). Charleston was able to offer few defenses.

The British moved slowly and deliberately toward Charleston from their landing on the North Edisto River behind Seabrook Island. Advance units crossed the Ashley River at Drayton Hall on 20 March 1780, and camped near the well-known Quarter House tavern. On 29 March, the main army crossed over the river to Charleston Neck, several miles above town, and used the Quarter House as command headquarters (Uhlendorf 1938). Then, on 1 April, Major James Moncrieff, chief engineer for the British Army, directed the excavation of the enemy's first siege parallel 730 meters (800 yards) from the American works (Lumpkin 1981:42-46). The rebel South Carolinians were not prepared for an attack in this direction. They were besieged and entirely captured in May after offering a weak defense. Charleston subsequently became a base of operations for British campaigns into the interior of South

Carolina, Georgia, and North Carolina. However, the combined American and French victory over Lord Cornwallis at Yorktown in 1782, effectively destroyed British military activity in the South and forced a negotiated peace (Lumpkin 1981). The 13 colonies gained full independence, and the English evacuated Charleston in December 1782.

Antebellum Period (1783–1865)

In 1783, the year the Treaty of Paris was signed, ending the war with Britain, the City of Charleston was incorporated and the city limit moved north to Boundary Street. The city's name was also changed from "Charles Town" to Charleston. As the city grew in the closing years of the eighteenth century, so did development on the Neck. In 1785, both Meeting and King Streets were extended up the peninsula. Mazyckborough was laid out in 1786, bounded by the Cooper River to the east, Chapel Street to the North, Elizabeth Street to west, and Boundary Street to the south. Between 1801 and 1806, Wraggborough was developed, defined by Mazyckborough and the river on the east, Boundary Street on the south, Meeting Street to the east, and Mary Street on the north. Across Meeting Street, the City and the State exchanged the blocks on which the eighteenth century defenses had been located (at present-day Marion Square), a portion of it becoming the site of a tobacco inspection facility by 1790, and 35 years later, the site of the Citadel.

Through the onset of the Civil War in 1861, the developed portions of the Charleston Neck lay south of Line Street, which is now immediately south of the Crosstown Expressway. A lightly developed area lay north of Line Street on the west side of King Street, leading up to the Washington Race Course (what is now Hampton Park). With the exception of this scatter of houses, the Upper Peninsula was still largely plantation acreage.

Plantations devoted to staple-crop agriculture, surrounded by legions of small, yeoman-owned farms, dominated the Lowcountry landscape in the early and mid-nineteenth century (McCurry 1995). Figure 2.4 shows the Project Area and the surrounding area in 1825, revealing few settlements. Rice and cotton were the chief staples, and both crops were grown on many plantations, with the low-lying areas used as rice fields and the higher and drier

upland areas plowed and planted in cotton. Agricultural products remained the primary industry of the region throughout the early nineteenth century.

Plantations in and near the Study Area were devoted primarily to rice, some quite extensively. By 1860, for example, Peter Gaillard Stoney at Medway Plantation (north of the Study Area) produced 175,000 pounds of rice, while Daniel DeSaussure Graves at Back River Plantation produced 50,000 pounds of the staple. Plantations on Daniel Island across the Cooper River from the Study Area focused on Sea Island and short staple cotton. Along with rice and cotton, plantations on the neck tended to also produce cattle, subsistence crops, like corn and peas and garden crops to sell in Charleston. Small armies of enslaved Africans worked these plantations.

Extensive military action occurred around Charleston during the Civil War. These operations, however, occurred south and southwest of the Study Area, and no military activities occurred within the Study Area during the conflict. The Study Area was located well behind the primary Confederate defense lines, and there is little probability that earthworks were constructed there.

Postbellum Period (1865–1918)

Following the Civil War, the mode of production shifted from plantations with slave labor to tenant farms or sharecropped plots in most of the region. As a result, the population became dispersed throughout the landscape as individual families became responsible for smaller tracts of land. Most of the rice lands were abandoned after the Civil War, since adequate pools of labor and capital were not available to continue the crop's profitable cultivation. The trend of population dispersal continued in the rural areas into the twentieth century.

In 1867, a post-Civil War land boom occurred along the South Carolina coast due to the presence of phosphates. Over the next 30 years, phosphate and fertilizer plants sprouted up along the rivers as old plantation owners and Northern investors sought to get rich converting the massive phosphate deposits into marketable fertilizers. The mining industry supplied a source of hard cash to thousands of unemployed former slaves and their families, but did little to obviate their place on the lower end of the postbellum economic scale. The depression of

1893 and more easily extractable deposits in Tennessee and Florida brought an end to the South Carolina phosphate industry in the first decades of the twentieth century (Shick and Doyle 1985; Shuler et al. 2006).

In the 1890s, the City of Charleston acquired much of the land within the Study Area for the anticipated growth of the City. Charleston planned Chicora Park, designed by the Olmstead Brothers, as a rural retreat for City residents. In 1901, the US Navy (USN) purchased the nascent Chicora Park and much of the surrounding land to create what would become Navy Base Charleston. In 1905, General Asbestos and Rubber Company (GARCO) erected a sizable manufacturing facility on the west bank of the Cooper River about one mile north of the Study Area. Workers on the base and at the factory quickly settled in the area, and the unincorporated small town became known as North Charleston. By World War II, residential areas had stretched to the south bank of Filbin Creek, located north of the Study Area. Figure 2.5 presents a 1915 map of the North Charleston area showing the growing industrial town of North Charleston and the expanding network of roads that support transportation and housing along the east side of the Charleston-Summerville road (Old State Road). The Study Area encompasses all or parts of several of the early to middle twentieth-century residential developments of the region: Chicora Place, Charleston Heights, Cherokee Place, Buckfield, Mappus Tract, Olde North Charleston, The Ben Tillman Homes, and The George Legare Homes.

US Navy Installation. Development of a USN installation on the Cooper River began in 1901. A portion of the landscaping that was started in Chicora Park was retained in the northern end of the navy base, where the quarters for senior officers were constructed. Rail connections with the Atlantic Coast Line and Seaboard Air Line tracks to the west (both completed in 1889 along the route of the original Charleston-to Hamburg rail line- the oldest rail line in the United States) were quickly established to provide ready access for the materials needed to repair and outfit USN vessels. The facility (called the Charleston Navy Yard) initially provided repair services for USN vessels along the southeast Atlantic



Figure 2.4 A portion of Mills' (1825) map of Charleston County showing the approximate location of the Study Area.

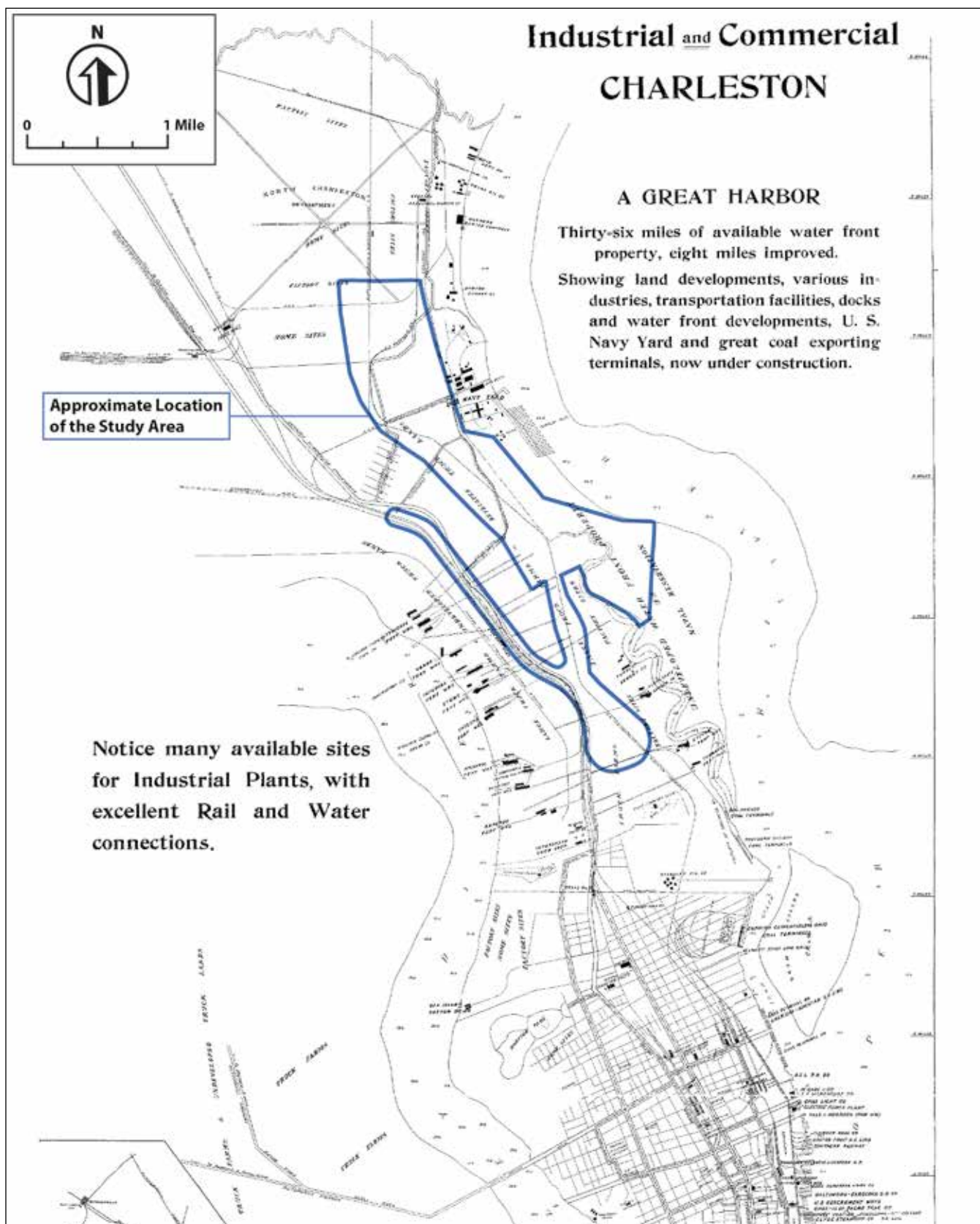


Figure 2.5 A portion of the 1915 Industrial and Commercial Map of Charleston (McCrary Brothers and Cheves, Inc., 1915) showing residential, industrial, and infrastructure development in and near the Study Area.

Seaboard. By 1910, the USN was expanding its shipbuilding capabilities, and the Charleston Navy Yard experienced growth associated with this expansion. By the entry of the United States into World War I (WWI), the navy yard also based a torpedo boat squadron, training facilities and specialist schools, and support naval factories. Shipbuilding expanded during WWI, although the Charleston yard was not designed to build battleships or cruisers, the largest warships of the USN. The factories established here also expanded their operations to accommodate the growth of the USN during the nation's involvement in a world war. The end of WWI saw a drastic reduction in the US military and the Charleston Navy Yard. Many of the factories, schools, and training facilities closed. Ship repair and construction were minimal. Some facilities were even dismantled.

The early 1930s witnessed a return to naval expansion as the United States began to compete with the growing powers of Europe and the Far East. The Charleston Navy Yard began its greatest period of growth over the late 1930s and the early 1940s as the United States prepared for and entered World War II (WWII). The Charleston Navy Yard focused on the repair and construction of destroyers and destroyer escorts, and a plethora of small service, support, and specialty vessels. Over 25,000 workers were employed at the shipyard in 1943, with four dry-docks in operation. This period witnessed the expansion of the facility to its southern limits, with massive dredging and filling operations necessary to create the land needed to support the shipbuilding and repair activities along the Cooper River. In addition to building and repair, the yard also was the home of antisubmarine activities using both fixed wing and lighter-than-air machines (blimps). The air station supporting these activities was closed at the end of WWII.

Although the end of WWII witnessed a drop in activity, the Charleston Navy Yard became Navy Base Charleston and received the headquarters of the Fleet Mineforce. As the USN changed its vessels during the 1950s and 1960s, the Naval Shipyard began the construction and maintenance of nuclear powered vessels, with a fifth dry-dock built in the 1960s to accommodate nuclear-powered Polaris missile submarines that were home-berthed at Charleston. Navy Base Charleston replenished the nuclear missile submarines (including their bal-

listic missiles and nuclear warheads) that patrolled the Atlantic Ocean throughout the Cold War era. All of these facilities remained in operation until 1996, when the USN closed Navy Base Charleston. The USN entered a Programmatic Agreement (PA) with the SC SHPO, requiring the adaptive reuse of the historic buildings and structures on the base to satisfy the Navy's obligations under the National Historic Preservation Act. The Redevelopment Authority (current managers of the CNC as the former base is called today) was created to manage the conversion of the former Navy Base Charleston into a non-military commercial/industrial complex within these parameters. The Authority continues this function today and must abide by the PA implemented by the USN and the SHPO when the base was closed.

As the USN activities expanded during the early and mid-twentieth century, so too did the residential and commercial neighborhoods adjacent to the installation. Residences were needed for the thousands of workers who came to the shipyard for employment. Commercial enterprises sprang up to support these workers and the growing naval population on the base itself. Eventually, this growth contributed to the establishment of the City of North Charleston around the navy base. When the base closed in 1996, growth diminished in the surrounding neighborhoods, although the residential districts continue to be occupied in full.

North Charleston. In the 1930s, large portions of land in the South Carolina Coastal Plain were purchased by northern-owned paper mill companies which manufactured Kraft paper for the growing United States packaging industry. Most prominent in the Charleston area was West Virginia Pulp and Paper Company (WVPPC), which began operations in North Charleston just northeast of the Study Area in 1937. The mill provided several hundred needed jobs for the local economy suffering through the Great Depression. As part of its acquisition of thousands of acres of Lowcountry land, WVPPC acquired a large portion of the Study Area and planted timber there until the beginning of World War II.

The coming of World War II boosted the local economy as the military poured hundreds of millions of dollars into the Charleston area, not only

at the existing US Navy base and older coastal fortifications, but also at new facilities such as Starke General Hospital, Charleston Ordnance Depot, and the Charleston Port of Embarkation, all located in and near North Charleston.

After the war, most of the military installations were returned to private hands. Development pressure made the smaller urban areas around Charleston, such as North Charleston, centers of a burgeoning population. In 1972, North Charleston incorporated, taking in much of the land from the Charleston City limit to Goose Creek along both the Ashley and Cooper Rivers. These areas became industrial and residential subdivisions. By the end of the twentieth century, North Charleston was one of South Carolina's largest cities, covering some 60 square miles with a population exceeding 80,000.

2.2.4 Summary of the Survey Universe History

A concise history of the area is provided here. More comprehensive histories may be found in Bean (2011), Fick (1995), and Goodwin (1995). The Survey Universe remained rural and largely undeveloped throughout the eighteenth and nineteenth centuries. With the exception of a few plantation/farm settlements, the area was devoid of residences during this period. Development of the area began in earnest at the beginning of the twentieth century and continued through the mid-twentieth century. Residential neighborhoods were conceived, and the roads and lots were drawn, marked on the ground, and then developed.

Charleston was severely affected by the Great Depression during the late 1920s-1930s. It was only after the start of World War II that the economy of the area began to rebound. Several military installations, including Navy Base Charleston and Naval Weapons Station Charleston, were constructed in and near the Study Area to train and house thousands of troops. The 1937 Charleston County Highway Map shows residential development in the Study Area that is most likely associated with the Navy Base (Figure 2.6). Between 1940 and 1942, the rapid pace of construction in North Charleston increased as government-funded construction was supplemented by the development of single-family residential neighborhoods. Attending the develop-

ment of residential neighborhoods were new businesses, most located along Dorchester Road.

Thus, we expect the majority of resources encountered during this investigation to be products of the mid-twentieth century residential housing surge associated with military installations and local industries. To a lesser extent, we expect to encounter some early-twentieth century residential housing associated with the early Charleston Navy Yard and GARCO. It was also anticipated that the survey would identify a small number of commercial resources that accompanied the residential housing growth of the area.



Figure 2.6 A portion of the 1937 Charleston County Highway Map showing residential development in the Study Area.

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3.0 Results of the Investigations

3.1 Previous Cultural Resources Investigations and Known Resources

3.1.1 Previous Cultural Resources Investigations In and Near the NB ICTF Study Area

We examined the State Archaeological Site Files at the SCIAA and on the ArchSite online database for previously identified archaeological sites in the Study Area. Additionally, the NRHP files of the SCDAH were searched for previously identified historic architectural resources using ArchSite. We also reviewed pertinent reports detailing cultural resources investigations near the Study Area. Our intent was to identify previously recorded archaeo-

logical sites, historic properties, and previous investigations within the Study Area. Previously identified cultural resources and previous cultural resources investigations conducted within the Study Area are summarized below and are depicted on Figure 1.1. Table 3.1 lists the cultural resource investigations within and near the Study Area.

Fick (1995) conducted a historical and architectural survey of North Charleston initiated by the city to develop an understanding of North Charleston's historic resources. Fick (1995) recorded approximately 119 historic architectural resources within the Survey Universe.

Goodwin (1995) conducted an architectural survey of the CNC prior to its closing. They identified 121 individual buildings or structures as

Table 3.1 Cultural resources investigations within and near the NB ICTF Study Area.

Author(s)	Date	Title
Fick	1995	City of North Charleston Historical and Architectural Survey
Goodwin	1995	Inventory, Evaluation, and Nomination of Military Installations: Naval Base Charleston
USC Legacy Project	1995	The Cold War in South Carolina, 1945-1991: An Inventory of Department of Defense Cold War Era Cultural and Historical Resources in the State of South Carolina
Shmookler	1995	Archaeological Sensitivity Assessment for the Disposal and Reuse of Charleston Naval Base, North Charleston, South Carolina
Poplin and Salo	2005	Historic Properties Assessment, Proposed Marine Container Terminal, Charleston Harbor, South Carolina
Poplin, Salo and Ellerbee	2006	Cultural Resources Survey of the Proposed Access Road Alternate Alignments, South Carolina State Ports Authority's Charleston Naval Center Marine Container Terminal Project, Charleston County, South Carolina
Burns, Salo and Philips	2007	Cultural Resources Survey of the South Rhett Tract, North Charleston, Charleston County, South Carolina
Adams and Hughes	2009	Phase I Cultural Resources Survey of the Proposed SC 7 Bridge over SCL and Southern Railroad and S-39 Expansion, Charleston County, South Carolina
Bean	2011	Architectural Survey for the Intermodal Container Transfer Facility at the Charleston Naval Base, North Charleston, South Carolina
Daugherty	2011	Phase I Archaeological Survey of the Intermodal Yard at the former Charleston Naval Base, North Charleston, South Carolina
Philips and Moore	2013	Ground Penetrating Radar Investigations of a Possible Cemetery, Old Navy Base, Charleston County, South Carolina
Wagoner, Philips and Fletcher	2013	Cultural Resources Survey of the Chicora Elementary School Replacement Tract, Charleston County, South Carolina
Owens, Bragg and Poplin	2014	Architectural Survey in Support of South Carolina Public Railway's Proposed Intermodal Container Transfer Facility

historic properties on the CNC; 118 lie within three historic districts. These districts include the CNY Historic District, the CNH Historic District, and the CNYOQ Historic District. The three historic properties that stand outside the districts include Buildings 1179 (World War II-era chapel), Building 590-A (late 1930s US Coast Guard bachelor officers' quarters), and Building 17 (World War I-era Marine Barracks). All stand in the northern portion of the CNC, adjacent to the historic districts.

Shmookler (1995) conducted an assessment of the potential of the CNC to contain archaeological resources. He determined that most of the installation witnessed extensive alterations during its development and use by the USN. Much of the land within the CNC was created during the twentieth century to accommodate the Navy's activities. Other areas were modified to accommodate the facilities constructed and activities undertaken by the USN. The CNC alternate location lies on lands made since 1941. Thus, there is little potential for archaeological sites to be present in the CNC location.

The USC Legacy Project (1995) identified 389 buildings, structures, and objects associated with the Cold War-Era (1946-1989) functions of Navy Base Charleston. Any or all of these buildings could have significant associations rendering them eligible for the NRHP. The authors offered no specific recommendations for individual buildings, although they listed examples of buildings that best reflected the various defined functions of the installation during the Cold War Era. Six of these highlighted buildings stand within the Study Area.

Poplin and Salo (2005) prepared an assessment of effect of the South Carolina State Ports Authority's (SCSPA) CNC Marine Container Terminal (MCT) on cultural resources as a component of the EIS for the CNC MCT. This assessment identified historic properties within and near the CNC MCT, including the shipping lanes that lead from the mouth of the harbor to the CNC and the proposed MCT. Several of these historic properties lie within our Study Area.

Poplin et al. (2006) conducted an intensive architectural survey of the potential road corridors that might service the proposed CNC MCT. These road corridors extend near the southern edge of our Study Area. They identified 39 mid-twentieth-century houses that retained sufficient integrity to

be recorded with the SCSS. Three of these houses were determined eligible for the NRHP. All lie outside our Study Area.

Burns et al. (2007) conducted an intensive cultural resources survey of the 28-acre South Rhett Tract, to the northwest of the Study Area. They identified one archaeological site (38CH2152) within the tract and no historic architectural resources near the tract. Site 38CH2152 (containing nondiagnostic Pre-Contact ceramic artifacts and eighteenth- to twentieth-century Post-Contact artifacts) was determined not eligible for the NRHP. The site exhibited severe displacement and disturbance related to twentieth-century uses of the tract.

Adams and Hughes (2009) surveyed a section of SC Route 7 (Cosgrove Avenue) between Lenape Street and Mott and Azalea Avenues in support of the improvement of the SC Route 7 bridge over rail lines and Meeting Street. This survey identified six new archaeological sites (38CH2297-38CH2302) and revisited one site (38CH0702). All were determined not eligible for the NRHP upon SHPO review. All displayed disturbed contexts and deposits; 38CH0702 is an early twentieth-century landfill with artifacts from earlier periods mixed throughout. This survey also recorded 125 historic architectural resources within and near their APE; all were determined not eligible for the NRHP upon SHPO review. One historic property (Resource 4254- Six Mile School or today's Mary Ford Elementary School) was identified near the APE. This historic property lies approximately 500 feet outside the NB ICTF Study Area.

Bean (2011) conducted an architectural survey of the initial manifestation of the NB ICTF. She identified two historic districts (CNY and CNH) and two individual historic properties (Buildings 1179 and M-17) within her APE. She noted that Building 1179 and Hospital District Buildings 758, 762, 763, AA, BB, CC, DD, EE, and LL all would likely have to be demolished or relocated based on the design of the NB ICTF at that time. She also noted that the CNH District likely would suffer further degradation through neglect due to the proximity of its remaining elements to the proposed rail lines that would serve the NB ICTF. This survey was not reviewed by the SHPO at that time. We submitted this report for review to ensure that her level of examina-

tion of the portions of our Study Area outside the CNC met the SHPO's standards, eliminating those areas from survey during our investigation.

Daugherty (2011) conducted an intensive archaeological survey of the initial manifestation of the NB ICTF concurrent with Bean's (2011) architectural survey. This investigation found no archaeological sites within the surveyed area. They noted that almost all portions of the CNC evidenced severe disturbance related to the USN uses of the installation. They recommended that there was little or no potential for archaeological sites to be present within the proposed NB ICTF footprint that could be eligible for the NRHP. Like Bean (2011), the report of this survey was not reviewed by the SHPO at that time. We submitted the report to the SHPO for review. The SHPO concurred with Daugherty's (2011) recommendations concerning limited archaeological potential within the CNC.

Philips and Moore (2013) conducted historical research, ground penetrating radar (GPR) survey, and exploratory mechanical excavations in an attempt to locate an African American cemetery shown on pre-USN maps of Chicora Park. The cemetery lies somewhere within the CNYOQ Historic District today (outside our Study Area). Redevelopment Authority staff discovered the cemetery when reviewing maps of Chicora Park prepared in the 1890s. USN topographic maps prepared in the 1900s do not show the cemetery. Philips and Moore (2013) georeferenced the cemetery map using GIS and then attempted to locate graves or features associated with the burying ground through GPR survey and mechanical excavations. Areas in the yards of Quarters C, O, and S and between the streets in this portion of the CNC were examined with the GPR. Anomalies were noted in several areas; limited mechanical excavations were undertaken to determine if the anomalies were graves. No evidence of graves was found. Fills covered all of the areas examined, ranging in depth from 10-100 cm (0.3-3+ ft). Various infrastructure elements also had been installed within and beneath these fills by the USN to serve the officers' residences. This further demonstrates the degree of disturbance that exists within the CNC and the limited potential for undisturbed archaeological deposits or sites to be present.

Wagoner et al. (2013) conducted an intensive cultural resources survey of the 6.56-acre Chicora

Elementary School Replacement Tract. The Charleston County School District plans to build a new school to replace the Chicora Elementary School (Historic Property 4255) due to limited earthquake survivability within the historic building. Wagoner et al. (2013) identified one archaeological site (38CH2435) and seven historic architectural resources (1638 originally identified by Fick 1995 and 6352-6357- all residences). All of these resources were determined not eligible for the NRHP. The kinds of architectural resources identified by Wagoner et al. (2013) reflect the mid-twentieth-century development of this area. Similar to Burns et al.'s (2007) findings, archaeological site 38CH2345 displayed extensive disturbance with Pre-Contact and Post-Contact artifacts mixed throughout the site and 20-50 cm (0.6-1.6 ft) of fill present in some areas. Again, this demonstrates the degree of disturbance that occurred throughout most of the Study Area.

Owens et al. (2015) conducted an intensive survey of previously unsurveyed areas in the then-smaller NB ICTF Study Area. Their Survey Universe covered approximately one square mile in the residential and commercial/industrial areas north, west, and south of the CNC. They also evaluated six buildings on the CNC for Cold War-era significance. The survey recorded 44 residential and commercial buildings constructed before 1965 that retained sufficient integrity to be included on the South Carolina Statewide Survey of historic sites. All of the 44 residential/commercial resources and the six Cold-War-era CNC buildings were determined not eligible for the NRHP upon the SHPO review of the survey. Owens et al. (2015) also presented assessments of effect for the three alternatives for the NB ICTF defined at that time. These assessments are effectively moot since seven new alternatives for the NB ICTF have been defined by the USACE.

3.1.2 Previously Recorded Historic Properties In and Near the NB ICTF Study Area

Historic properties within and near the Study Area include three historic districts (all associated with the former NBC), two planned communities of houses and apartments (in the residential areas west of the CNC), 13 individual buildings (three within the CNC that are not associated with the Districts

and 10 in the adjoining residential neighborhoods), and one structure. Table 3.2 lists the historic properties in and near the Study Area. All three historic districts are listed in the NRHP. Four of the individual buildings have been demolished recently. One of the planned communities of houses was demolished and then rebuilt on a similar plan. One structure has been demolished and replaced. One other building is scheduled for demolition in the near future; this action is not related to the proposed NB ICTF. Descriptions of the historic properties on the CNC are presented prior to the descriptions of historic properties in the adjoining residential neighborhoods. Documentation of the SHPO review and concurrence with the major recent investigations and actions regarding these historic properties (the PA regarding the disposal of NBC; review and comment on Bean 2011 and Daugherty 2011; review of Owens et al. 2015; concurrence for demolition of the Five Mile Viaduct; concurrence on the relocation of CNC Building 1179) is appended.

The Charleston Navy Yard Historic District (CNY) lies both within and outside the Study Area; however, most of the district is outside the Study Area. The CNY primarily extends along the Cooper River, east of the Study Area and mostly east of Hobson Avenue. Only the northwestern elements of the District extend into the Study Area. The CNY was listed in the NRHP in 2006 and contains 86 buildings, structures, and objects that are a cohesive representative example of permanent naval industrial construction that reflect the major trends in United States Naval development between 1900 and 1945. Fifty-seven of the 86 buildings/structures/objects contribute to the NRHP eligibility of the District; the remaining 29 do not contribute. The portion of the CNY located within the Study Area is approximately 10 percent of the overall historic district and includes eight contributing historic buildings/structures and one non-contributing element.

Functions included industrial facilities, administrative facilities, support facilities, and storage facilities.

Table 3.2 Historic properties in and near the NB ICTF Study Area.

Resource #	Name
6000699	Charleston Navy Yard Historic District (89 elements / 57 contributing)
10000851	Charleston Naval Hospital Historic District (35 elements / 32 contributing)
7000100	Charleston Navy Yard Officers' Quarters Historic District (40 elements / 28 contributing)
N/A	USMC Barracks (CNC Building M17)
N/A	Eternal Father of the Sea Chapel (CNC Building 1179) ¹
N/A	USCG Air Station Bachelor Officers' Quarters (CNC Building 590-A) ²
1519	George Legare Homes ³
1526	Ben Tillman Graded School (McNair Elementary School)
1527	Ben Tillman Homes
1663	GARCO Employee Housing residences (2)
1664	GARCO Employee Housing residence
1665	GARCO Employee Housing residence ⁴
1842	Five Mile Viaduct ⁴
4254	Six Mile Elementary School
4255	Chicora Elementary School
4286	North Charleston Firehouse ⁴
4306	Freedman's cottage
4309	Freedman's cottage
Notes	¹ - CNC Building 1179 relocated out of Project Alternatives 1-4 ² - CNC Building 590-A demolished ³ - George Legare Homes rebuilt on similar footprint as original buildings / not eligible for listing on the NRHP ⁴ - Resources 1665, 1842, 4286 demolished

ties. The elements of the District reflect four periods of construction/architectural styles. These are:

- 1901-1910- Neo-Classical style
- 1910s-end of World War I (WWI)- Moderne industrial style
- Post-WWI-late 1930s- Moderne federal style
- Late 1930s-1945- utilitarian style

Defining architectural characteristics of the buildings and structures within the District are their large scale and high density. Naval industrial processes required large spaces. These kinds of buildings provide that space; compact masses create efficiency when combining various elements of the industrial processes to create larger objects, such as ships. Smaller buildings and structures scattered throughout the industrial facility elements generally are support and administration facilities. Some of the buildings and structures, particularly those built during the early periods of development, have ornate architectural elements. The later constructions tend to be more utilitarian, partly an effect of the acceleration of shipbuilding activities as the United States approached entry into WWII. Although different types of vessels were constructed throughout the life of the shipyard, most buildings and structures retained their original functions until the shipyard and base closed in 1996. Since then, some of the buildings have been sold or leased to private, commercial industrial facilities, engineering laboratories, and Clemson University. Several of the dry docks continue to be used to maintain and repair ships, including USN vessels with contractors leasing the facilities and carrying out the necessary repairs and re-fittings. No ships are currently being built at the CNC.

The CNH lies in the northern portion of the CNC, completely within the Study Area. This District was listed in the NRHP in 2010 and includes 35 buildings and structures; 32 buildings contribute to the NRHP eligibility of the District. The buildings and structures in the District reflect the growth and development of the USN in the lead-up to and during WWII. All possess the same architectural style: Spanish Colonial or Mission Revival. This theme was common for military buildings throughout the 1920s and 1930s. Although one building in the District was built during WWI, most of the buildings

were constructed during the late 1930s and 1940s as the USN and NBC grew rapidly. There are three groups of buildings in the District:

- treatment facilities (the central core of the District)
- service-related buildings and structures (to the east of the treatment facilities)
- hospital staff residences (to the west, south, and north of the treatment facilities)

These hospital facilities served NBC until 1972, when a new hospital facility was built to the south and west outside the Study Area. Many of the buildings were refitted by the USN over the next two decades for other purposes, although the external configurations and layout of the hospital complex remained basically intact, despite the loss of several buildings and structures. This is especially true for the central treatment facilities. Since the closure of the base in 1996, some of these CNH buildings have been refitted once again for new private commercial purposes. All of the CNH lies within the Study Area.

The CNYOQ lies in the northern portion of the Study Area, but is primarily outside of the Study Area. This District was listed in the NRHP in 2007 and includes 40 buildings, structures, objects, and sites; 28 of these contribute to the eligibility of the District. Approximately 20 percent (eight buildings) of the District lies within the Study Area; all are contributing elements of the District. These residences were built at the northern edge of the former NBC in the central core of the former Chicora Park. They include a variety of styles depending on when they were constructed. Streets wind through the District rather than follow the grid network of the streets in the other portions of the base. Today, large trees are present throughout the District, creating a very pleasant residential neighborhood. Larger houses lie closer to the water and to the north of the district where the base golf course lies. Senior officers occupied the larger residences with junior officers living in smaller houses, some of which are multifamily units. Since 1996, the Redevelopment Authority employs one of these buildings for their headquarters. Others have been sold as private residences and restaurants. Many remain unoccupied. A group of these houses also serve as sets for television and movie productions.

The Chapel of the Eternal Father of the Sea (CNC Building 1179) stands at the east edge of the Study Area, near the intersection of Hobson Avenue and Avenue B South. This Chapel was built in 1942 and served seamen living in barracks constructed in this portion of the former base at that time. Most of the barracks were removed, but recreational facilities associated with this residential area of the base remain. The Chapel has not been used for services in support of USN personnel since the closing of NBC in 1996. The surrounding grounds today provide parking for nearby businesses. The Chapel is a wood-frame building resting on a brick foundation. The entrance is framed by four columns supporting the projecting porch roof. Iron hand rails were likely added to the front steps for safety, and a concrete ramp was added to provide access for the disabled. The Redevelopment Authority relocated the Chapel to the site of Quarters 705 (which was demolished) within the CNYOQ between April 2014 and March 2015.

The US Marine Corps (USMC) Barracks (CNC Building M17) on the former NBC stands north of a grassed lawn on Marine Street within the Study Area. The lawn served as a parade ground when the barracks was occupied. Building M17 was built in 1910 and served as the residence of USMC enlisted personnel throughout the operation of NBC. This two-story E-shaped building is a concrete structure with large columns on the south façade that frame and support ground level and upper level porticos. Five dormers pierce the hipped roof. The building is currently unoccupied.

The US Coast Guard Air Station Bachelor Officers' Quarters (USCG AS BOQ; CNC Building 590-A) was recently demolished, but originally stood approximately 800 feet northeast of the Study Area. This building served as the barracks for USCG and USN aircrews between 1936 and 1952. This building no longer exists; it was demolished sometime between March 2013 and March 2014.

Historic properties outside the CNC include three schools, six residences, one municipal building, one highway structure, and two planned communities of residences. All stand on the west side of Spruill Avenue or streets to the west of Spruill Avenue.

Six Mile Elementary School (Resource 4254), today called Mary Ford Elementary, stands at 3180 Thomasina McPherson Boulevard, near the north-

ern end of the Study Area associated with the existing rail lines southwest of the CNC. This school was constructed in 1955 as part of South Carolina's Equalization Program, an effort to maintain the state's segregated school system by providing new schools for African-American students. It is one of a few African-American schools that has a two-story building similar to white schools in the area, reflecting efforts of the equalization program to create equivalent facilities for African-American and white children (Dobrasko 2005:31).

Chicora Elementary School (Resource 4255) located at 1912 Success Street, near the western edge of the Study Area, was built in 1920 to serve the children of local white families that moved into the neighborhoods adjacent to NBC. As a component of South Carolina's Equalization Program, additions were added to the school in 1955. It operated as an elementary school, until 2011 when it was determined not to meet current earthquake-resistance standards. Replacement of the school on an adjoining tract is planned for the near future.

Resources 1663, 1664, and 1665 are residences located at 3008-3012 Chicora Avenue (two residences), 1912 Carlton Street, and 1820 Carlton Street, respectively. These residences were built to house employees of the General Asbestos and Rubber Company (GARCO). Hundreds of houses were constructed in the area on company land to support GARCO's new plant that was built in the North Charleston area between 1913 and 1916. Housing construction began in 1916. By 1941, there were 245 houses supporting the GARCO plant. In the 1970s-1980s, GARCO sold most of the houses; many were moved to areas off the company's lands. Today, only Resources 1663 and 1664 remain.

Resources 4306 and 4309 are residences located at 1985 Joppa Street and 2028 Irving Avenue, respectively. These residences are freedman's cottages, a vernacular style that developed in the City of Charleston after the Civil War when newly freed African Americans obtained land and built homes. This style is not very common outside of Charleston so the presence of these types of dwellings in North Charleston contributes to their NRHP eligibility. Both were likely built in the 1940s.

The Ben Tillman Graded School (Resource 1526), located at 3975 Spruill Avenue, is now the

Ronald E. McNair Elementary School. It was built in 1942 to accommodate the growing populace associated with the expanding NBC. It remains in operation today. This school stands on the west side of Spruill Avenue adjacent to the Study Area.

The George Legare Homes (Resource 1519) lie on the west side of Spruill Avenue to the north and west of the former Ben Tillman School. The Ben Tillman Homes (Resource 1527) also lie on the west side of Spruill Avenue, but to the south of the school. Both are adjacent to the Study Area. These collections of residential buildings were built on land obtained by the City of Charleston Housing Authority (George Legare Homes stand on the grounds of the old County Prison Farm) and leased to the USN for the construction of housing to support the expanding NBC during WWII. After the War, these neighborhoods returned to the control of the Charleston Housing Authority, which operated them as affordable housing. In 1984, Charleston Housing Authority passed control to the City of North Charleston Housing Authority. North Charleston Housing Authority retains control of the George Legare Homes, but sold the Ben Tillman Homes to a private owner in 1987. All still remain as residential complexes. These masonry multifamily residences or apartment blocks were constructed on a spacious campus, with clusters of buildings around parking areas and grassy parks, and with short narrow alleys and curving perimeter roads connecting the clusters. The George Legare Homes were demolished and then rebuilt on similar footprints in the late 2000s. This replacement compromised the NRHP eligibility of this resource. The SHPO determined the George Legare Homes no longer eligible for the NRHP following an evaluation by Owens et al. (2015- see also Appendix A).

Resource 4286 (the former North Charleston Firehouse) stood at 2000 Meeting Street, originally inside the Study Area at the intersection of Meeting Street and Pittsburgh Avenue. Poplin et al. (2006) noted that this 1930s firehouse was the only example of this kind of municipal facility in this portion of North Charleston during their survey of the potential road access routes to the proposed SCSPA CNC MCT, contributing to its NRHP eligibility. The building was demolished sometime between November 2006 and February 2007.

Resource 1842 is the Five Mile Viaduct that carried US Highway 78 – King Street Extension over rail lines and Meeting Street Road to its intersection with US Highway 52- Meeting Street, where these streets merge to form Rivers Avenue. The Viaduct was built in 1926, and represents one of the earliest undertakings of the SC Highway Department (today's Department of Transportation- SCDOT) during one of its busiest decades of construction. The two-lane Viaduct was demolished and replaced in 2013-2015 with a new bridge and roadway. SCDOT sponsored Historic American Engineering Record (HAER) documentation of the original Viaduct per a Memorandum of Agreement developed by the Federal Highway Administration, SCDOT, and the Advisory Council on Historic Preservation to mitigate the destruction of this historic property. The original structure is no longer present.

3.2 Archaeological Background Research

Development of the CNC (originally NBC) and the surrounding neighborhoods throughout the twentieth and twenty-first centuries has disturbed much of the original ground surface, thereby significantly reducing the potential for encountering intact archaeological features or deposits in most of the Study Area. Made and filled lands constitute much of the Study Area south of Naval Base/Viaduct Road. In such areas, there is a very low potential for archaeological deposits. Shmookler's (1995) assessment of archaeological potential within former NBC found that there was a very limited potential for intact archaeological deposits to be present within any portion of the installation. Recent archaeological investigations within the CNC near the Study Area (e.g., Daugherty 2011; Philips and Moore 2013) discovered 1-6 ft of fill in almost all areas that were sampled, and recovered no artifacts or only found a few fragments that likely were re-deposited with the fills brought in to build up and shape the landscape within the CNC. Archaeological sites have been identified in undeveloped tracts within and near the Study Area (e.g., Adams and Hughes 2009; Burns et al. 2007; Wagoner et al. 2013). These investigations discovered sites that were diffuse scatters of prehistoric and eighteenth- to twentieth-century artifacts determined not eligible for the NRHP. Both areas

displayed extensive disturbances, including 1-2 ft of fill in some areas. Thus, all historic properties identified to date within or immediately adjacent to the Study Area are buildings, structures, or collections of buildings and structures that form historic districts.

There are 10 archaeological sites near the Study Area (38CH0702, 38CH1496, 38CH1252, 38CH2153, 38CH2297, 38CH2298, 38CH2299, 38CH2300, 38CH2301, and 38CH2302) and one site (38CH2435) inside the Study Area, not including underwater archaeological sites in the Cooper River. All contain Pre-Contact and/or Post-Contact artifacts. Sites 38CH1496 and 38CH2153 lie in the central and eastern portion of the CNYOQ 1,100-1,500 ft east of the Study Area and any proposed actions associated with the Project; neither has been evaluated for NRHP eligibility. Site 38CH2435 within the Study Area and the other nine sites near the Study Area (all lying 350-800 ft west or north of the Accabee Road railroad crossing) are not eligible for the NRHP.

3.3 Architectural Survey Results

Brockington and Associates, Inc. conducted an intensive architectural survey of the Survey Universe on December 11 through 16, 2015. The architectural investigations consisted of a windshield survey of the Survey Universe to identify any potential historic architectural resources. The project architectural historian recorded any buildings, structures, objects, or landscapes within the Survey Universe that are over 50 years of age and that retain sufficient integrity using the Statewide Survey of Historic Properties Intensive Documentation Form and digital black-and-white photography. During the architectural survey, the architectural historians identified 46 historic architectural resources (Resources 6464-6509-see Figures 1.4 through 1.7). Table 3.3 summarizes the historic architectural resources identified during this survey. Fick (1995) provides a complete inventory of architectural types and styles built within the Study Area through 1945. Several of the newly recorded historic architectural resources have become survey eligible since 1995 and so further add to the City of North Charleston's inventory of resources. A brief description of each resource follows.

Table 3.3 Inventory of newly recorded historic architectural resources.

Site #	Address	Historic Name	Historic Use	Date	NRHP Eligibility
6464	1781 Harmon Street	unidentified house	domestic	c. 1940	Not eligible
6465	2013 Herbert Street	unidentified house	domestic	c. 1940	Not eligible
6465.01	2013 Herbert Street	unidentified house	domestic	c. 1940	Not eligible
6465.02	2013 Herbert Street	unidentified house	domestic	c. 1940	Not eligible
6465.03	2013 Herbert Street	outbuilding	domestic	c. 1940	Not eligible
6466	1882 Milford Street	unidentified industrial/ commercial building	commerce/ trade	1955	Not eligible
6467	1850B Meeting Street Road	unidentified house	domestic	c. 1940	Not eligible
6468	1858 Meeting Street Road	unidentified house	domestic	c. 1935	Not eligible
6469	2316 Meeting Street Road	unidentified house	domestic	c. 1940	Not eligible
6470	2049 Forest Avenue	unidentified house	domestic	c. 1935	Not eligible
6471	2048 Forest Avenue	unidentified house	domestic	c. 1950	Not eligible
6472	2330 Meeting Street Road	unidentified house	domestic	c. 1935	Not eligible
6473	2051 Echo Avenue	unidentified house	domestic	c. 1945	Not eligible
6474	2052 Echo Avenue	unidentified house	domestic	c. 1935	Not eligible
6475	2052 Delaware Avenue	unidentified house	domestic	c. 1940	Not eligible
6476	2071 Beech Avenue	unidentified house	domestic	c. 1940	Not eligible
6477	2072 Beech Avenue	unidentified house	domestic	c. 1945	Not eligible
6478	2076 Beech Avenue	unidentified house	domestic	c. 1950	Not eligible

Table 3.3 Inventory of newly recorded historic architectural resources (continued).

Site #	Address	Historic Name	Historic Use	Date	NRHP Eligibility
6479	2075 Arbutus Avenue	unidentified house	domestic	c. 1940	Not eligible
6480	2042 Hackemann Avenue	unidentified house	domestic	c. 1940	Not eligible
6481	2508 Meeting Street Road	unidentified house	domestic	c. 1950	Not eligible
6482	2049 Riverview Avenue	unidentified house	domestic	c. 1935	Not eligible
6483	2672 Meeting Street Road	unidentified house	domestic	c. 1915	Not eligible
6484	2682 Meeting Street Road	Greater Bethel Baptist Church	religion	c. 1960	Not eligible
6485	2076 Jacksonville Road	unidentified house	domestic	c. 1955	Not eligible
6486	2708 Meeting Street Road	unidentified house	domestic	c. 1945	Not eligible
6486.01	2708 Meeting Street Road	unidentified house/garage	domestic	c. 1960	Not eligible
6487	2710 Meeting Street Road	unidentified house	domestic	c. 1945	Not eligible
6488	2714 Meeting Street Road	unidentified house	domestic	c. 1945	Not eligible
6489	2716 Meeting Street Road	unidentified house	domestic	c. 1945	Not eligible
6490	2033 Saint Francis Street	unidentified house	domestic	c. 1945	Not eligible
6491	2115 Adair Street	unidentified house	domestic	c. 1945	Not eligible
6492	2943 Meeting Street Road	Masonic Suburban Lodge No. 213	social	c. 1955	Not eligible
6493	2900 Appleton Street	New Hope Missionary Baptist Church	religion	c. 1960	Not eligible
6494	2118 Easton Street	unidentified house	domestic	c. 1960	Not eligible
6495	2156 Creighton Street	unidentified house	domestic	c. 1950	Not eligible
6496	3252 Appleton Street	unidentified house	domestic	c. 1920	Not eligible
6496.01	3252 Appleton Street	unidentified house	domestic	c. 1940	Not eligible
6497	3260 Appleton Street	unidentified house	domestic	c. 1940	Not eligible
6498	3233 Truman Avenue	unidentified house	domestic	c. 1940	Not eligible
6499	3243 Truman Avenue	unidentified house	domestic	c. 1940	Not eligible
6500	3249 Truman Avenue	unidentified house	domestic	c. 1950	Not eligible
6501	3253 Truman Avenue	unidentified house	domestic	c. 1950	Not eligible
6502	2149 Keever Street	unidentified house	domestic	c. 1915	Not eligible
6503	3317 Meeting Street Road	cemetery	funerary	1917+	Not eligible
6504	SE corner Accabee Road/ Appleton Street	cemetery	funerary	1945+	Not eligible
6505	1976 Forest Avenue	unidentified house	domestic	c. 1945	Not eligible
6506	1977 Echo Avenue	unidentified house	domestic	c. 1940	Not eligible
6507	1976 Echo Avenue	unidentified house	domestic	c. 1935	Not eligible
6508	1974 Echo Avenue	unidentified house	domestic	c. 1935	Not eligible
6509	1901 Boxwood Avenue	unidentified house	domestic	c. 1945	Not eligible

3.3.1 Resource 6464 (1781 Harmon Street)

This house is a one-story bungalow with an end to front gabled roof constructed circa 1940. The foundation is continuous concrete block. The siding is a combination of asbestos shingles and vinyl over faux brick asphalt roll. The partial-width, gable porch is centered and has square wood supports and balustrade. The front door is historic wood panel. The windows are one-over-one vinyl double-hung sash replacements, with one multi-pane fixed vinyl replacement on the south side. There are faux shutters on some of the windows. There is one brick chimney centered on the ridge of the roof. The roof is clad with corrugated sheet metal. There is one gable addition off of the rear (west) end. Figure 3.1 shows the east façade of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6464 not eligible for the NRHP.



Figure 3.1 View of Resource 6464, east façade.

3.3.2 Resource 6465 (2013 Herbert Street)

The parcel attributed to this resource contains three dwellings (Resources 6465, 6465.01, and 6465.02) and one outbuilding (6465.03). The primary dwelling, Resource 6465, faces north toward the street, while Resource 6465.01 is directly south and mostly obstructed by vegetation and Resource 6465.02 is just south of 6465.01 and partially visible from a northwest vantage point on the street. Resource 6465 is a massed plan lateral gabled house constructed circa 1940. The foundation is a combination of stuccoed masonry piers and longer sections. The siding is replacement aluminum. The small gable porch has square wood supports and balustrade with decorative spindle brackets, and a vent in its end made to look like a window. The front door is historic wood panel. There are 16 pane picture windows flanked by four-over-four double-hung sash windows to either side of the front entrance. The remaining windows are obscured by a combination of screens and low aluminum awnings. There is a brick chimney with decorative details on the west gable end exterior of the house. The roof is clad with composition shingles. There is a large gable addition off of the rear (south) side that more than doubles the square footage of the house, and a shed addition off of the west side of that. Figure 3.2 shows the north façade of the resource. There is a historic shed outbuilding (Resource 6465.03) just northwest of the house. It is rectangular in shape and covered in replacement aluminum siding that obscures original details. Figure 3.3 shows the northeast oblique of the resource.

The second dwelling on the property (Resource 6465.01) is mostly obscured by vegetation and a modern outbuilding, so description is limited. The house appears to have a lateral gabled roof with weatherboard siding constructed circa 1940. At least one window is two-over-two double-hung sash. The roof is clad with composition shingles and has exposed rafter tails. Figure 3.4 shows a portion of the northeast oblique of the resource. The third dwelling on the property (Resource 6465.02) is only visible from the northwest. The resource appears to be a linear plan lateral gabled house with full façade gable additions to both sides, more than doubling the square footage. The circa 1940 dwelling has what appears to be a concrete block pier foundation. The siding is weatherboard. There is a gable entry porch

with triangular brackets, and the door is historic wood panel with a single boarded light. The windows are two-over-two double-hung sash, both vertical and horizontal patterns. There is one louvered window. The roof is clad with composition shingles and has exposed rafter tails. Figure 3.5 shows the northwest oblique of the resource. None of the buildings associated with Resource 6465 possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6465 not eligible for the NRHP.



Figure 3.2 View of Resource 6465, north façade.



Figure 3.3 View of Resource 6465.03, northeast oblique.



Figure 3.4 View of Resource 6465.01, northeast oblique.



Figure 3.5 View of Resource 6465.02, northwest oblique.

3.3.3 Resource 6466 (1882 Milford Street)

This commercial building has a rounded roof over a rectangular plan, like an airplane hangar. The building was constructed circa 1955 likely as some sort of industrial shop, but seems to have been converted into office space. The foundation is a form-poured concrete pad. The siding is of brick veneer. The west side has five bays, two of which are nearly full elevation entry ports covered by a large door on a hanging rail system. The other three bays may have originally been ports that are now enclosed with faux board and batten plywood and modern doors in both end bays. Large metal columns remain along the west side to support the beam above the non-load bearing wall. The entry on the north end of the west side has a flat metal entry cover. The east side has six bays, three of which have modern doors and the other three have windows. Two of the entrances have flat metal entry covers. The windows along the ends are both eight and nine pane fixed windows, while the windows along the east side are six-over-three metal awning or hopper sash windows. The roof is clad with sheet metal. There is a modern com-

mercial gable end to front building directly north of the resource. Figure 3.6 shows the southwest oblique of the resource. This commercial building does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6466 not eligible for the NRHP.



Figure 3.6 View of Resource 6466, southwest oblique.

3.3.4 Resource 6467 (1850 B Meeting Street Road)

This resource is a massed plan lateral gabled house constructed circa 1940. The house is constructed of concrete block and the foundation is continuous concrete block. The siding is unsheathed concrete block. The partial-width, shed porch has square wood supports. The front door is a modern replacement. The windows are six-over-six vinyl double-hung sash replacements. There is one brick chimney on the ridge of the roof towards the east end. The roof is clad with composition shingles and has exposed rafter tails. Figure 3.7 shows the southwest oblique of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6467 not eligible for the NRHP.



Figure 3.7 View of Resource 6467, southwest oblique.

3.3.5 Resource 6468 (1858 Meeting Street Road)

This house is a one-story bungalow with an end to front gabled roof constructed circa 1935. The foundation is a combination of brick piers, concrete block piers, and continuous concrete block. The exterior is clad with aluminum siding. The front porch is engaged on the southwest corner with decorative metal support and hand rails. The front door appears to be a modern replacement. The windows are historic three-over-one, two-over-two, and six-over-six double-hung sash, and one-over-one vinyl double-hung sash replacements. The roof is clad with composition shingles. Figure 3.8 shows the southwest oblique of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6468 not eligible for the NRHP.



Figure 3.8 View of Resource 6468, southwest oblique.

3.3.6 Resource 6469 (2316 Meeting Street Road)

This house is a one-story bungalow with an end to front gabled roof constructed circa 1940. The foundation is concrete block piers. The exterior is clad with aluminum siding. The partial-width, gable porch is centered and has decorative metal supports. The front door appears to be a modern replacement. The windows are historic two-over-two double-hung sash behind modern vinyl storm windows. There is one brick chimney centered on the ridge of the roof. The roof is clad with composition shingles. Figure 3.9 shows the northwest oblique of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6469 not eligible for the NRHP.



Figure 3.9 View of Resource 6469, northwest oblique.

3.3.7 Resource 6470 (2049 Forest Avenue)

This house is a one-story bungalow with an end to front gabled roof constructed circa 1935. The foundation is obscured by a brick veneer. The exterior is clad with synthetic weatherboard siding. The partial-width, gable porch is in line with the east slope of the primary roof, and has square wood supports and balustrade. The front door was not visible behind a modern storm door. The windows are six-over-six vinyl double-hung sash replacements. There are faux shutters on the windows. The roof is clad with composition shingles. There is a modern stoop and entrance addition on the west side of the house. Figure 3.10 shows the northwest façade of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6470 not eligible for the NRHP.



Figure 3.10 View of Resource 6470, northwest façade.

3.3.8 Resource 6471 (2048 Forest Avenue)

This house is a one-story bungalow with an end to front gabled roof constructed circa 1950. The house is constructed of concrete block and the foundation is continuous concrete block. The siding is unsheathed concrete block. The front porch is engaged on the southwest corner with a square wood post set on a brick pier support. A short, full-width shed roof projects from within the gable end above the porch. The front door appears to be a modern replacement. The windows are metal one-over-one double-hung sash replacements. There is one concrete block chimney on the southeast side exterior with a terra cotta pipe. The roof is clad with composition shingles. Figure 3.11 shows the southwest oblique of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6471 not eligible for the NRHP.



Figure 3.11 View of Resource 6471, southwest oblique.

3.3.9 Resource 6472 (2330 Meeting Street Road)

This house is a one-story bungalow with a hipped roof constructed circa 1935. The house is constructed of concrete block and the foundation is continuous concrete block. The siding is unsheathed concrete block with rounded corners. The partial-width hipped porch is centered with square and turned supports and balustrade. The front door is obscured by a modern storm door and decoration. The windows are metal one-over-one double-hung sash and casement replacements with one picture window to the north of the front entrance. The windows have brick sills. There is a stoop and entrance on the southeast side of the house. The roof is clad with composition shingles. Figure 3.12 shows the southwest oblique of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6472 not eligible for the NRHP.



Figure 3.12 View of Resource 6472, southwest oblique.

3.3.10 Resource 6473 (2051 Echo Avenue)

This house is a one-story bungalow with an end to front gabled roof constructed circa 1945. The foundation is brick piers. The exterior is clad with weatherboard siding. The partial-width, gable porch is centered and has one square wood and one decorative metal support. The front door is boarded shut. Only one, two-over-two double-hung sash window is visible, the rest are boarded shut. The roof is clad with composition shingles and has exposed rafter tails. There is a historic, full-length shed addition along the southwest side, and a small shed addition off of the southeast end. Figure 3.13 shows the northwest façade of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6473 not eligible for the NRHP.



Figure 3.13 View of Resource 6473, northwest façade.

3.3.11 Resource 6474 (2052 Echo Avenue)

This house is a one-story bungalow with an end to front gabled roof constructed circa 1935. The foundation is continuous concrete blocks. The exterior is clad with novelty siding. The partial-width, gable porch is in line with the northeast slope of the primary roof, and has square wood supports resting on brick piers. The front door is modern. The windows are vinyl six-over-six double-hung sash replacements. The roof is clad with composition shingles. Figure 3.14 shows the east oblique of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6474 not eligible for the NRHP.



Figure 3.14 View of Resource 6474, east oblique.

3.3.12 Resource 6475 (2052 Delaware Avenue)

This house is a one-story bungalow with an end to front gabled roof constructed circa 1940. The foundation is brick pier with continuous concrete block infill. The exterior is clad with aluminum siding. The full-width, engaged porch is an extension of the primary roof, and has square wood supports and balustrade. The porch was screened in and had a metal awning added. The front door is obscured by the porch screen. A concrete block landscaping wall capped with brick extends to the sidewalk from the east corner of the porch foundation and ends with a concrete block post capped with brick and a decorative concrete sphere. Two similar posts flank the walkway to the porch at the sidewalk. The windows appear to be vinyl sliding replacements with metal awnings and faux shutters. There is a large modern picture window just east of the entrance. There is a brick chimney on the northeast side exterior toward the rear of the house with a terra cotta pipe. The roof is clad with composition shingles and has exposed rafter tails. There is a rear gable addition off of the northwest end. Figure 3.15

shows the east oblique of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6475 not eligible for the NRHP.



Figure 3.15 View of Resource 6475, east oblique.

3.3.13 Resource 6476 (2071 Beech Avenue)

This house is a one-story bungalow with an end to front gabled roof constructed circa 1940. The foundation is a combination of brick and concrete block piers. The exterior is clad with vinyl siding. The full-width, engaged porch is an extension of the primary roof, and has decorative metal supports and balustrade. The front door is modern with fan light. The windows are vinyl six-over-six double-hung sash replacements with faux shutters. The roof is clad with composition shingles. Figure 3.16 shows the north oblique of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6476 not eligible for the NRHP.



Figure 3.16 View of Resource 6476, north oblique.

3.3.14 Resource 6477 (2072 Beech Avenue)

This house is a one-story massed plan building with an end to front gabled roof constructed circa 1945. The house is a duplex with two modern front doors, and may have a double shotgun floorplan. The house is constructed of concrete block and the foundation is continuous concrete block. The siding is unsheathed concrete block. The partial-width, gable stoop porch is centered and has square wood supports and balustrade. There are both historic two-over-two double-hung sash windows, and vinyl six-over-six double-hung sash replacements. The windows have brick sills. The roof is clad with composition shingles. Figure 3.17 shows the north oblique of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6477 not eligible for the NRHP.



Figure 3.17 View of Resource 6477, north oblique.

3.3.15 Resource 6478 (2076 Beech Avenue)

This house is a one-story massed plan building with an end to front hipped roof constructed circa 1950. The house is constructed of concrete block and the foundation is continuous concrete block. The siding is unsheathed concrete block. The partial-width, hipped porch is located on the east half of the front façade and has square wood supports and is screened in. The front door is historic wood panel. There is a fixed picture window just west of the front porch. The other windows are historic two-over-two double-hung sash. The windows have brick sills. The roof is clad with composition shingles. Figure 3.18 shows the southeast façade of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6478 not eligible for the NRHP.



Figure 3.18 View of Resource 6478, southeast façade.

3.3.16 Resource 6479 (2075 Arbutus Avenue)

This house is a two-story massed plan building with an end to front hipped roof constructed circa 1940. The house is constructed of concrete block and the foundation is continuous concrete block. The siding is unsheathed concrete block. The partial-width, shed porch is located on the east portion of the front façade and has square wood supports and is screened in. The building contains multi-apartments with two modern front doors and another entrance at the rear end of the southwest side. The windows are a combination of historic two-over-two double-hung sash, metal two-over-two double hung sash, and sliding metal replacements. Some of the windows have brick sills; a few window ports have been filled with masonry. The roof is clad with composition shingles. Figure 3.19 shows the northwest oblique of the resource. The building does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6479 not eligible for the NRHP.



Figure 3.19 View of Resource 6479, northwest oblique.

3.3.17 Resource 6480 (2042 Hackemann Avenue)

This resource is a massed plan lateral gabled house with Minimal Traditional elements, constructed circa 1940. The frame house is sheathed with asbestos shingles that obscure the foundation. The front door is a modern replacement on the south end of the southeast side with a shed entry cover of corrugated metal. The windows are historic six-over-six double-hung sash covered by modern vinyl storm windows. The roof is clad with composition shingles and has exposed rafter tails. Figure 3.20 shows the southeast façade of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6480 not eligible for the NRHP.



Figure 3.20 View of Resource 6480, southeast façade.

3.3.18 Resource 6481 (2508 Meeting Street Road)

This resource is a one-part block commercial building, constructed circa 1950. The one-story, frame building has an end to front gabled roof with a storefront parapet façade. The foundation is continuous concrete blocks. The front façade is sheathed with vinyl siding while the rest of the building is sheathed with asbestos shingles. The front entrance is centered and boarded shut. Historic, twenty-light fixed display windows flank the entrance and are covered with security bars. The store signage is no longer present. The roof is clad with composition shingles and has exposed rafter tails. There is a gable addition off of the rear northeast end. Figure 3.21 shows the west oblique of the resource. This commercial building does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6481 not eligible for the NRHP.



Figure 3.21 View of Resource 6481, west oblique.

3.3.19 Resource 6482 (2049 Riverview Avenue)

This house is a one-story bungalow with an end to front gabled roof constructed circa 1935. The foundation is continuous concrete block. The exterior is clad with vinyl siding. The front porch is engaged on the west corner with square wood supports and balustrade. The front door appears to be a modern replacement. The windows are vinyl six-over-six double-hung sash replacements. The roof is clad with composition shingles. There is a small shed addition off of the southeast rear end. Figure 3.22 shows the west oblique of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6482 not eligible for the NRHP.



Figure 3.22 View of Resource 6482, west oblique.

3.3.20 Resource 6483 (2672 Meeting Street Road)

This house is a one-story central hallway with a lateral gabled roof constructed circa 1915. The foundation is brick piers with concrete block infill. The exterior is clad with what is likely replacement novelty siding. The partial-width, hipped porch is centered and has square wood supports and balustrade. The front door is a modern replacement. The windows are a combination of historic two-over-two and four-over-four double-hung sash, and metal one-over-one double hung sash replacements. All windows are covered by modern vinyl storm windows. The roof is clad with composition shingles and has exposed rafter tails. There is a large historic gable addition off of the north end of the northeast rear side that nearly doubles the square footage. There is a rear porch within the L-shape created by the addition. There are two brick chimneys; one in the northeast slope of the primary roof and one centered on the ridge of the addition. Figure 3.23 shows the southwest façade of the resource. The house does not possess distinctive architectural characteristics

that would meet the significance standards of the NRHP; therefore, we recommend Resource 6483 not eligible for the NRHP.



Figure 3.23 View of Resource 6483, southwest façade.

3.3.21 Resource 6484 (2682 Meeting Street Road- Greater Bethel Baptist Church)

This resource is a one-story end to front gabled church constructed circa 1960. There is a belfry on the primary roof ridge with a copper alloy louvered vent and cross at its pinnacle. The foundation appears to be a combination of form-poured concrete pad and some type of pier system obscured by the brick veneer siding. The partial-width, gabled entry porch is centered with fluted Doric column supports and round louvered vent. There is a wheelchair ramp off of the south side of porch with a metal handrail. There is a louvered vent with keystone lintel above a stone church name plaque within the gable end just above the porch roof. The entrance has historic wood panel double doors and a keystone lintel. The windows are fixed stained glass of various sizes with keystone lintels. There is a gable addition off of the east corner of the building. The roof is clad with composition shingles. There is a cornerstone at the south corner inscribed with a founding date of 1960. Figure 3.24 shows the southwest façade of the resource. The church does not possess distinctive architec-

tural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6484 not eligible for the NRHP.



Figure 3.24 View of Resource 6484, southwest façade.

3.3.22 Resource 6485 (2076 Jacksonville Road)

This house is a one-story massed plan building with an end to front hipped roof constructed circa 1955. The house is constructed of concrete block and the foundation is continuous concrete block. The siding is unsheathed concrete block. The partial-width, hipped porch is located on the west half of the front façade and has square wood supports. The front door appears to be historic wood panel behind a historic screen door. The windows are historic two-over-two double-hung sash. The roof is clad with composition shingles and has exposed rafter tails. Figure 3.25 shows the southeast façade of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6485 not eligible for the NRHP.



Figure 3.25 View of Resource 6485, southeast façade.

3.3.23 Resource 6486 (2708 Meeting Street Road)

This house is a one-story bungalow with a hipped roof constructed circa 1945. The house exterior is sheathed with stuccoed masonry that obscures the foundation. The partial-width hipped porch is located on the north half of the front façade with square wood supports and is screened in. There is a metal awning around the eaves of the porch. The front door is obscured by the screen porch. The windows are a combination of historic two-over-two and one-over-one double-hung sash. The roof is clad with composition shingles. There is a stuccoed masonry chimney on the northwest side exterior with a terra cotta pipe. There is a small hipped addition off of the east end of the rear (northeast) façade. Figure 3.26 shows the southwest façade of the resource. There is an associated historic two-story garage apartment (6486.01) just north of the primary dwelling constructed circa 1960. The building is constructed of concrete block and the foundation is continuous concrete block. The siding is unsheathed concrete block. The entrance is centered on the southwest façade with a modern replacement door and a modern overhead garage door just west of the entrance. There is a modern fixed picture window above the garage door with a metal awning. The rest of the windows are a combination of mismatched historic double-hung sash and vinyl six-over-six double-hung sash replacements. There is a modern wood stairway and second story porch with entrance on the southeast side of the building. Figure 3.27 shows the southwest façade of this building. None of the buildings associated with Resource 6486 possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6486 not eligible for the NRHP.



Figure 3.26 View of Resource 6486, southwest façade.



Figure 3.27 View of Resource 6486.01, southwest façade.

3.3.24 Resource 6487 (2710 Meeting Street Road)

This house is a one-story bungalow with a hipped roof constructed circa 1945. The house exterior is sheathed with stuccoed masonry that obscures the foundation. The full-width hipped porch is engaged with decorative metal supports and balustrade. There is a metal awning around the eaves of the porch. The front door is obscured by a modern storm door. The windows are a combination of historic two-over-two double-hung sash and vinyl six-over-six double-hung sash replacements. Some of the windows have metal awnings and faux shutters. The roof is clad with composition shingles. There is a small shed addition off of the rear (northeast) façade. There is a shed carport with decorative metal supports off of the northwest side of the house. Figure 3.28 shows the south oblique of the resource. There is a modern secondary dwelling just north of the resource. This house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6487 not eligible for the NRHP.



Figure 3.28 View of Resource 6487, south oblique.

3.3.25 Resource 6488 (2714 Meeting Street Road)

This house is a one-story bungalow with a hipped roof constructed circa 1945. The house is constructed of concrete block and the foundation is continuous concrete block. The siding is unsheathed concrete block. The partial-width hipped entry porch was extended along the south half of the front façade with a shed roof and square wood supports. The porch is screened in. The door is a modern replacement. The windows are historic six-over-six double-hung sash covered by modern metal storm windows. The roof is clad with composition shingles. There is a hipped addition off of the rear (northeast) façade. Figure 3.29 shows the southwest façade of the resource. This house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6488 not eligible for the NRHP.



Figure 3.29 View of Resource 6488, southwest façade.

3.3.26 Resource 6489 (2716 Meeting Street Road)

This house is a one-story bungalow with a hipped roof constructed circa 1945. The exterior of the house is sheathed with brick veneer that obscures the foundation. The partial-width hipped porch is located on the north half of the front façade with decorative metal supports. The door is historic wood panel with a single fixed light and spindle decoration. The windows are vinyl one-over-one double-hung sash replacements. The roof is clad with composition shingles. There is a brick chimney with terra cotta pipe on the northwest side exterior. There is a hipped addition off of the north end of the rear (northeast) façade. Figure 3.30 shows the southwest façade of the resource. There is a small associated concrete block carport and shed building with a historic wood panel door that appears to be of modern construction just north of the house. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6489 not eligible for the NRHP.



Figure 3.30 View of Resource 6489, southwest façade.

3.3.27 Resource 6490 (2033 Saint Francis Street)

This house is a one-story bungalow with a hipped roof constructed circa 1945. The house exterior is sheathed with stuccoed masonry that obscures the foundation. The partial-width hipped porch is centered with square wood supports and is screened in. The door is a modern replacement. The windows are vinyl one-over-one double-hung sash replacements. The roof is clad with composition shingles. There is a stuccoed masonry chimney on the southwest side exterior with a terra cotta pipe. The house has a shed carport with concrete block supports off of the southwest side. There is a small hipped addition off of the rear (southeast) end. Figure 3.31 shows the southwest façade of the resource. This house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6490 not eligible for the NRHP.



Figure 3.31 View of Resource 6490, southwest façade.

3.3.28 Resource 6491 (2115 Adair Street)

This house is a one-story bungalow with a hipped roof constructed circa 1945. The house is constructed of concrete block and the foundation is continuous concrete block. The siding is unsheathed concrete block. The partial-width hipped porch is centered with decorative metal supports and balustrade. The front door appears to be a modern replacement. The windows are vinyl one-over-one double-hung sash replacements. The windows have faux shutters and some have security bars. The roof is clad with composition shingles. Figure 3.32 shows the west oblique of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6491 not eligible for the NRHP.



Figure 3.32 View of Resource 6491, west oblique.

3.3.29 Resource 6492 (2943 Meeting Street Road- Masonic Suburban Lodge No. 213)

This resource is a two-story end to front gabled Masonic lodge constructed circa 1955. The eaves continue around the gable end to form a triangular pediment. The building is constructed of concrete block and the foundation is continuous concrete block. The siding is unsheathed concrete block with brick veneer along the corners meant to resemble a temple front. There is a louvered vent at the very top of the gable end. The entrance is centered and recessed with a modern replacement door. There are large painted panels to either side of the entrance with Masonic symbols. There is also a large Masonic symbol with lodge information painted above the entrance. The windows are vinyl one-over-one double-hung sash replacements, and are only along the second story. There is a gable addition off of the southwest end of the building. The roof is clad with composition shingles. There is a brick chimney on the northwest side exterior that starts at the second story. There are exterior stairs to covered, second story entrances on both the northwest and south-

east sides. There is a damaged cornerstone at the north corner of the building with member names. Figure 3.33 shows the east oblique of the resource. The building does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6492 not eligible for the NRHP.



Figure 3.33 View of Resource 6492, east oblique.

3.3.30 Resource 6493 (2900 Appleton Street- New Hope Missionary Baptist Church)

This resource is a one-story end to front gabled church constructed circa 1960. There is a belfry on the primary roof ridge with louvered vent and copper alloy cross at its pinnacle. The foundation is obscured by the brick veneer siding. The partial-width, gabled entry projection is centered and has a rounded arch entrance. The entrance has what appear to be historic wood panel double doors retrofitted with modern hardware. A double arm staircase of masonry with modern metal handrails provides access to the entry. There is also a large elliptical transom of stained glass with the church's name above the doors. There is an architectural glass block cross within the gable end just above the porch roof. The windows are fixed stained glass with rounded arches. There is a gable addition off of the northwest corner of the building that turns at a 90-degree angle to run parallel with the primary building, creating a U-shaped plan with a courtyard. The addition has modern fixed windows and an architectural glass block cross in the gable end

facing the street. The roof is clad with composition shingles. There is a cornerstone at the south corner with member names. There are wheelchair access ramps along the southeast side of the main building and the northwest side of the addition. There are also stepped entries on the northwest side of the main building and the southeast side of the addition. Figure 3.34 shows the southwest façade of the resource. The church does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6493 not eligible for the NRHP.



Figure 3.34 View of Resource 6493, southwest façade.

3.3.31 Resource 6494 (2118 Easton Street)

This house is a one-story minimal Ranch with a cross-gabled roof constructed circa 1960. The foundation appears to be concrete block piers, but is mostly covered by decorative stamped metal sheeting. The house exterior is sheathed with novelty siding. The porch is engaged within the crook of the cross-gable and has decorative metal supports and balustrade. The door is obscured by a modern screen door. There is a picture window just north of the entrance. The windows are original two-over-two double-hung sash. The windows along the front (southeast) façade are decorated with wood trim with horizontal lines and diamond patterns. The roof is clad with composition shingles. There is a chimney centered on the ridge of the roof with only the terra cotta pipe visible. There is a small gable addition off of the rear (northwest) side. Figure 3.35 shows the southeast façade of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6494 not eligible for the NRHP.



Figure 3.35 View of Resource 6494, southeast façade.

3.3.32 Resource 6495 (2156 Creighton Street)

This house is a one-story bungalow with an end to front gabled roof constructed circa 1950. The foundation is concrete block piers. The exterior is clad with aluminum siding. The partial-width, gable porch is positioned on the north side of the front façade and has square wood supports. The porch is screened in. The front door appears to be a modern replacement. There are two large modern, vinyl replacement casement windows just north of the entrance. The other windows are historic two-over-two double-hung sash with one modern louvered window. The roof is clad with composition shingles. Figure 3.36 shows the southeast façade of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6495 not eligible for the NRHP.



Figure 3.36 View of Resource 6495, southeast façade.

3.3.33 Resource 6496 (3252 Appleton Street)

The parcel attributed to this resource contains two dwellings; Resources 6496 and 6496.01. Both dwellings appeared vacant at the time of our survey. The primary dwelling, Resource 6496 faces south toward the street, while Resource 6496.01 is directly north and mostly obstructed by vegetation. Resource 6496 is a one-story gable-front-and-wing house constructed circa 1920. The foundation is concrete block piers with concrete block infill. The siding is weatherboard. The partial-width enclosed gable porch is centered, and was a historic addition. A large shed addition with exposed rafter tails was added to the southeast corner of the house that encloses the original porch and the gable wing on the east. The primary front entrance is now on the east side of the gable porch and has a modern replacement door. The windows are all boarded shut. The roof is clad with V-crimp metal sheets. There is a shed addition off of the rear (north) side. Figure 3.37 shows the southeast oblique of the resource.

The second dwelling on the property (Resource 6496.01) is mostly obscured by vegetation, so description is limited. The house is a one-story bungalow with an end to front gabled roof constructed circa 1940. The foundation is concrete block piers and the exterior siding is aluminum. The full-width porch is engaged with square wood supports and balustrade. The roof is clad with V-crimp metal sheets. Figure 3.38 shows the south façade of the resource. None of the buildings associated with Resource 6496 possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6496 not eligible for the NRHP.



Figure 3.37 View of Resource 6496, southeast oblique.



Figure 3.38 View of Resource 6496.01, south façade.

3.3.34 Resource 6497 (3260 Appleton Street)

This house is a one-story bungalow with an end to front gabled roof constructed circa 1940. The foundation is some form of masonry piers partially obscured by lattice work. The exterior is clad with synthetic weatherboard siding. The front porch is engaged on the southwest corner with a decorative metal support. The front door appears to be modern replacement. The windows are vinyl six-over-six double-hung sash replacements. The roof is clad with composition shingles. Figure 3.39 shows the southeast oblique of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6497 not eligible for the NRHP.



Figure 3.39 View of Resource 6497, southeast oblique.

3.3.35 Resource 6498 (3233 Truman Avenue)

This house is a one-story bungalow with an end to front gabled roof constructed circa 1940. The foundation is continuous concrete block. The exterior is clad with asbestos shingles while the original novelty siding is still visible in areas. The partial-width, hipped porch is centered and has decorative metal supports and balustrade. The front door appears to be a modern replacement. The windows are vinyl one-over-one double-hung sash replacements. The roof is clad with composition shingles. There is a historic full-width gable addition off of the rear (south) end. Figure 3.40 shows the northeast oblique of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6498 not eligible for the NRHP.



Figure 3.40 View of Resource 6498, northeast oblique.

3.3.36 Resource 6499 (3243 Truman Avenue)

This house is a one-story bungalow with an end to front gabled roof constructed circa 1940. The foundation is brick piers with concrete block infill. The exterior is clad with novelty siding. The partial-width, hipped porch is centered and has decorative metal supports on top of brick piers. The front door is a modern replacement. There is a large modern picture window just west of the entrance. The other windows are vinyl nine-over-nine double-hung sash replacements. The roof is clad with composition shingles and has exposed rafter tails. There is a full-width gable addition off of the rear south end. Figure 3.41 shows the northwest oblique of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6499 not eligible for the NRHP.



Figure 3.41 View of Resource 6499, northwest oblique.

3.3.37 Resource 6500 (3249 Truman Avenue)

The house is a one-story gable-front-and-wing house constructed circa 1950. The house is constructed of concrete block and the foundation is continuous concrete block. The siding is unsheathed concrete block. The entrance facing north toward the street and centered in the gable end has no porch but is covered with a metal awning. There is a decorative metal security door obscuring the primary door. There is an attached carport off of the east gable wing with concrete block supports. There is a small entrance stoop on the west side near the south end with a shed roof and decorative metal supports. The windows include some mismatched six-over-four and two-over-four, with the majority being common two-over-two double hung sash. The roof is clad with composition shingles. There is a concrete block chimney with terra cotta pipe on the west side exterior. Figure 3.42 shows the northwest oblique of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6500 not eligible for the NRHP.



Figure 3.42 View of Resource 6500, northwest oblique.

3.3.38 Resource 6501 (3253 Truman Avenue)

This house is a one-story bungalow with an end to front gabled roof constructed circa 1950. The house is constructed of concrete block and the foundation is continuous concrete block. The siding is unsheathed concrete block. The partial-width shed porch wraps around the northeast corner of the house with square wood supports and is screened in. The primary entrance is on the east side toward the front (north) end and the door is obscured by the screened porch. The windows are a combination of six-over-six and two-over-two double-hung sash covered by vinyl storm windows. Some of the windows have metal awnings. The roof is clad with composition shingles. There is a stuccoed masonry chimney centered on the primary ridge. The house has a shed addition on the east side toward the south end. Figure 3.43 shows the north façade of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6501 not eligible for the NRHP.



Figure 3.43 View of Resource 6501, north façade.

3.3.39 Resource 6502 (2149 Keever Street)

The house is a one-story Charleston cottage (also known as a 'freedman's cottage') with an end to front gabled roof constructed circa 1915. The foundation is obscured by a vinyl siding screen. The exterior is clad with aluminum siding. The partial-width, side porch (known as a 'piazza' on the Charleston cottage) has a shed roof with decorative metal supports and balustrade. There is a shed addition off of the east end of the south side with another, larger shed addition off of that. There are two entrances along the south side from the porch and two along the west side of the additions. The doors are obscured by decorative metal screen security doors. There is a large modern picture window on the west gable end. The other windows appear to be vinyl one-over-one double-hung sash replacements. All of the windows are covered with security bars fashioned with the same decorative metal as the doors. The roof is clad with composition shingles. There is a brick chimney within the slope of the larger shed addition. Figure 3.44 shows the southwest oblique of the resource. The house does not possess distinctive architectural

characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6502 not eligible for the NRHP.



Figure 3.44 View of Resource 6502, southwest oblique.

3.3.40 Resource 6503 (3317 Meeting Street Road)

This cemetery is directly east and south of the associated Jerusalem Baptist Church, and covers an area of approximately 0.5 acres. The current church building is modern. The south and east perimeter is marked by a modern wood privacy fence. The cemetery contains approximately 160 marked graves, the earliest identified was from 1917. The graves are all facing in a general northeast direction. The cemetery has multiple shrubs and small trees. The markers are made primarily of marble, granite, and concrete. The common family names within the cemetery are Ricks, Washington, Whitaker, Nesbitt, Johnson, Hurd, Hardee, Campbell, Ravenel, Wilson, Green, McCullough, Brown, Ellis, Milligan, and Martin. There are armed forces commemorative markers for soldiers from World War I, World War II, the Korean War, and the Vietnam War. Figure 3.45 shows the cemetery, facing southwest. The aboveground components of the associated cemetery do not possess any unique architectural characteristics that would make them eligible for the NRHP; therefore, we recommend Resource 6503 not eligible for the NRHP.



Figure 3.45 View of Resource 6503, facing southwest.

3.3.41 Resource 6504 (southeast corner of Accabee Road and Appleton Street)

This resource is an unidentified cemetery that covers an area of approximately 0.5 acres. The south perimeter is Appleton Street, the west perimeter is Accabee Road, the north perimeter is the rail corridor, and the east perimeter is marked by a wooded area. The cemetery contains approximately 170 marked graves, the earliest identified was from 1945. The graves are all facing in a general northeast direction. The cemetery has multiple shrubs and a few mature trees. The markers are made primarily of marble, granite, and concrete. The common family names within the cemetery are Vance, Pickney, Williams, Flowers, and Rivers. There are armed forces commemorative markers for soldiers from World War II. Figure 3.46 shows the cemetery, facing southeast. The aboveground components of the associated cemetery do not possess any unique architectural characteristics that would make them eligible for the NRHP; therefore, we recommend Resource 6504 not eligible for the NRHP.

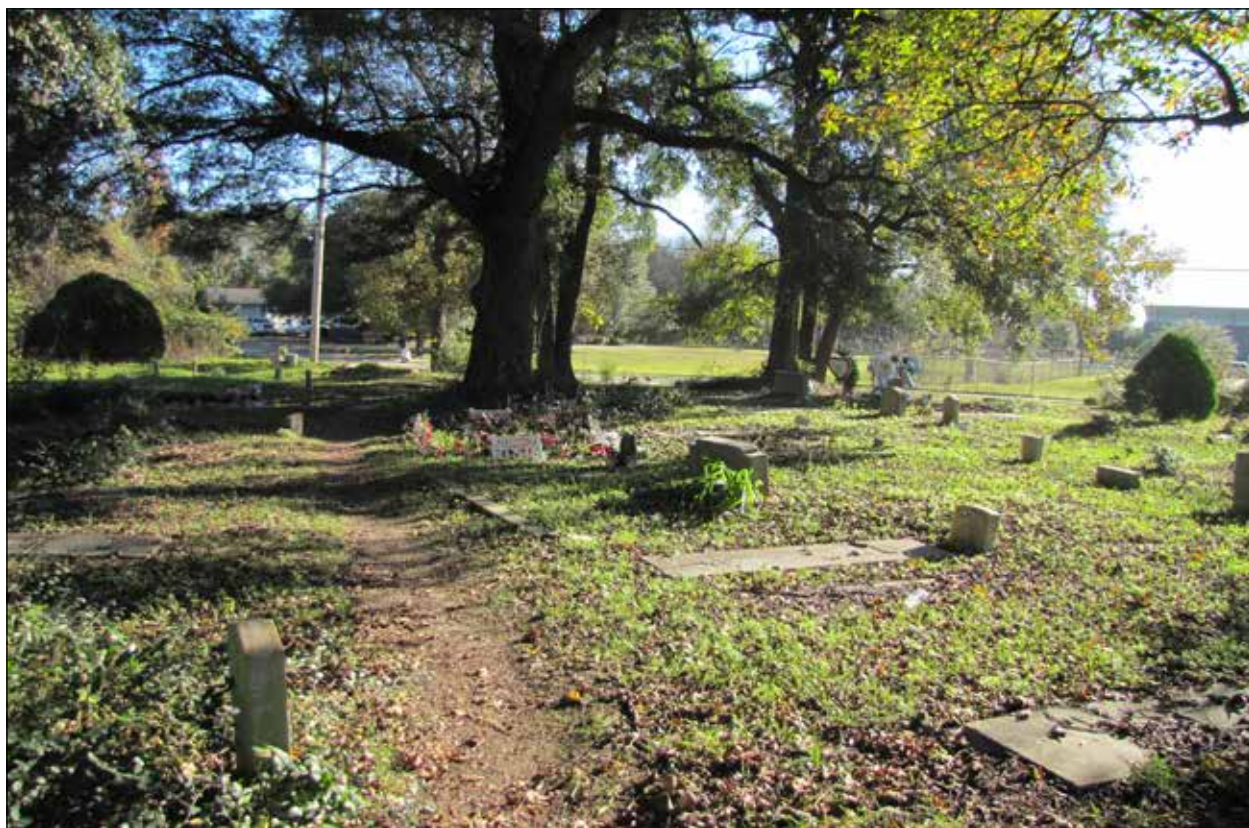


Figure 3.46 View of Resource 6504, facing southeast.

3.3.42 Resource 6505 (1976 Forest Avenue)

This house is a one-story bungalow with an end to front gabled roof constructed circa 1945. The foundation is continuous concrete block. The exterior is clad with asbestos siding. The partial-width, gable porch is centered and has decorative metal supports. The front door appears to be historic wood panel. The windows are vinyl six-over-six double-hung sash replacements. The door and front façade windows are covered by decorative metal security bars. The roof is clad with composition shingles. Figure 3.47 shows the southeast oblique of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6505 not eligible for the NRHP.



Figure 3.47 View of Resource 6505, southeast oblique.

3.3.43 Resource 6506 (1977 Echo Avenue)

This house is a one-story bungalow with an end to front gabled roof constructed circa 1940. The foundation is continuous concrete block. The exterior is clad with novelty siding. The partial-width, hipped porch is centered, and has turned wood spindle supports and balustrade. The front door appears to be a modern replacement. The windows are vinyl six-over-six double-hung sash replacements. The roof is clad with composition shingles. There is a historic gabled addition off of the rear (southeast) end. Figure 3.48 shows the north oblique of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6506 not eligible for the NRHP.



Figure 3.48 View of Resource 6506, north oblique.

3.3.44 Resource 6507 (1976 Echo Avenue)

This house is a one-story bungalow with Craftsman elements and an end to front gabled roof constructed circa 1935. The foundation is stuccoed masonry. The exterior is stuccoed masonry. There is a gabled projection on the southeast corner that appears to have been the original front porch, now enclosed. The partial-width, gabled porch is centered and has square wood supports on brick piers and balustrade. The porch wraps around the southeast end and southwest side of the enclosed original front porch. The porch alterations were historic, circa 1945. The house is a wood frame building that was covered in stuccoed masonry, likely at the same time as the porch alteration. The entrance is on the southwest side of the enclosed porch, the door is obscured. The windows are vinyl one-over-one double-hung sash replacements. The roof is clad with composition shingles. There is an entrance stoop on the southwest side of the house. Figure 3.49 shows the north oblique of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6507 not eligible for the NRHP.



Figure 3.49 View of Resource 6507, north oblique.

3.3.45 Resource 6508 (1974 Echo Avenue)

This house is a one-story bungalow with Craftsman elements and an end to front gabled roof constructed circa 1935. The exterior is clad with brick veneer that covers the foundation. The full-width, hipped porch has large battered supports on top of brick piers with a metal balustrade. The porch and windows have decorative metal awnings. The front door has 15 lights and appears to be a modern replacement. The windows are historic two-over-two double-hung sash. The roof is clad with composition shingles. There is a brick chimney with terra cotta pipe on the southwest side exterior. There is low concrete block wall capped with bricks and metal fence with a decorative metal gate along the sidewalk. Figure 3.50 shows the southeast façade of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6508 not eligible for the NRHP.



Figure 3.50 View of Resource 6508, southeast façade.

3.3.46 Resource 6509 (1901 Boxwood Avenue)

This resource is a massed plan lateral gabled house with Minimal Traditional elements, constructed circa 1945. The frame house is sheathed with asbestos shingles. The foundation is obscured by vegetation. The front door is a modern replacement on the north end of the northwest side with a metal awning over a stoop. The windows are vinyl six-over-six double-hung sash replacements with faux shutters and decorative metal security bars. The roof is clad with composition shingles. There is a brick chimney with terra cotta pipe centered within the northwest slope of the roof. There is a full-width gabled addition off of the rear southeast side. Figure 3.51 shows the northwest façade of the resource. The house does not possess distinctive architectural characteristics that would meet the significance standards of the NRHP; therefore, we recommend Resource 6509 not eligible for the NRHP.



Figure 3.51 View of Resource 6509, northwest façade.

3.4 Summary

Background research and architectural survey of portions of the NB ICTF Cultural Resources Study Area identified nine archaeological sites, 18 historic properties (three districts, two residential subdivisions, 13 individual buildings [one property contains two buildings], and one structure), and 203 other historic architectural resources (157 recorded by previous investigators and 46 recorded during the present investigations). Eight archaeological sites lie outside the Study Area; two have not been evaluated for NRHP eligibility, and the other six are not eligible for the NRHP. One site lies within the Study Area but outside all of the Project alternatives; this site is not eligible for the NRHP (see Chapter 4 for a detailed discussion of the Project Alternatives).

Of the 18 historic properties, four individual buildings (CNC Building 1179- Chapel of the Eternal Father of the Sea, CNC Building 590-A [USCG AS BOQ], GARCO residence- Resource 1665, and former North Charleston firehouse- Resource 4286) and the structure (Five Mile Viaduct- Resource 1842) have been demolished or moved to a new location; one residential subdivision (George Legare Homes- Resource 1519) has been altered to such an extent that it is no longer eligible for the NRHP. These six historic properties cannot be affected by the Project or any other future development. Mitigation was conducted prior to the demolition of the Five Mile Viaduct by SCDOT and CNC Building 1179; there is no record of mitigative actions related to the other buildings. One other historic property (Resource 4255- Chicora Elementary School) is scheduled for demolition in the near future. The remaining 11 historic properties (CNY Historic District, CNH Historic District, CNYOQ Historic District, CNC Building M-17- USMC Barracks, Resource 1526- Ben Tillman Graded School, Resource 1527- Ben Tillman Homes, Resources 1663 [two houses] and 1664- GARCO residences, Resource 4254- Six Mile School, and Resources 4306 and 4309- Charleston freedman's cottages) remain extant within and near the Study Area. The relationships of these historic properties and potential effects associated with the Project alternatives are discussed in detail in Chapter 4. The other 203 historic architectural resources (primarily residential buildings) are not eligible for the NRHP or recommended not eligible for the NRHP (see above).

4.0 Recommendations

4.1 Inventory of Historic Properties

Architectural survey of the portions of the NB ICTF Study Area outside the CNC not examined by recent surveys (within the current Survey Universe) identified 46 buildings that retained sufficient historic characteristics to be recorded in the SC Statewide Survey (Resources 6464-6509). None of these buildings possess sufficient qualities or integrity to be eligible for the NRHP. We recommend all 46 of these historic architectural resources not eligible for the NRHP.

Previous investigations in the NB ICTF Cultural Resources Study Area identified 18 historic properties (three districts, two housing subdivisions, 13 individual buildings [one historic property contains two buildings], and one structure). Since 1995 when these resources were initially recorded and determined eligible for the NRHP, four individual buildings (CNC Buildings 1179 and 590-A, Resource 1665, and Resource 4286) and the structure (Resource 1842) have been demolished, and one of the housing subdivisions (George Legare Homes-Resource 1519) has been demolished and rebuilt in a similar layout. None of these historic properties/former historic properties can be affected by any activities related to the proposed NB ICTF (or any other future undertakings).

The relationships of the extant historic properties within and near the seven alternative locations and configurations of the Project are described below along with an assessment of potential effects related to the construction and operation of the proposed NB ICTF.

4.2 Assessment of Project Effect on Historic Properties

As proposed, the Project will add to the railway systems within the NB ICTF Cultural Resources Study Area. The use of railways for transportation within the Study Area has been a crucial part of the region's developmental history, and additional railway traffic will not alter the setting. We believe that the Project will not present any new vectors for potential effects on historic properties within the Study Area. However, specific actions may affect individual elements of some of the historic properties, depending on the

alternative chosen for the NB ICTF. An assessment of the potential effects associated with the construction and operation of the NB ICTF follows.

Currently, there are seven alternative configurations for the construction of the NB ICTF at two locations- the Proposed Project Site (with four alternative configurations- defined as NB ICTF Alternatives 1-4) and the River Center Site (with three alternative configurations- defined as the River Center [RC] ICTF Alternatives 5-7). Rail connections between the NB ICTF and existing rail lines must accommodate two competing railways- CSX Transportation (CSX) and Norfolk Southern Railway (NS). The alternative configurations provide optional connections for these rail lines.

The seven alternatives are:

- Alternative 1 - Proposed Project (NS access through north/CSX access through south)
- Alternative 2 - Proposed Project with alternate northern NS rail link
- Alternative 3 - Proposed Project with alternate southern CSX rail link
- Alternative 4 - Proposed Project with alternate southern NS and CSX rail links
- Alternative 5 - River Center Site (NS access through north/CSX access through south)
- Alternative 6 - River Center Site with alternate southern CSX rail link
- Alternative 7 - River Center Site with alternate southern CSX and NS rail links

We review the historic properties within and near each of these alternatives and assess potential effects that the use of each site and alternate configuration may create.

The Proposed Project Site includes all of the land (approximately 118 acres) between Hobson Avenue and the western edge of the CNC and between Reynolds Avenue and the southern ramp connecting Viaduct Road and Bainbridge Avenue, plus the land between Reynolds and McMillan Avenues and Hobson Avenue and Avenue E South. Varying rail connections extend north and south from this site to create Alternatives 1-4.

The River Center Site includes land (approximately 185 acres) between Noisette Boulevard and

Avenues E South, G, and H, and between St. Johns Avenue and Calumet Street. Varying rail connections extend north and south from this site to create Alternatives 5-7.

4.2.1 Alternative 1 - Proposed Project

Construction and operation of the proposed NB ICTF as Alternative 1 includes new rail lines and supporting infrastructure within the Proposed Project Site, as shown in Figure 4.1 (site is highlighted in transparent blue; rail lines in yellow). A new NS rail link (shown in yellow in Figure 4.1) extends northwest from the Proposed Project Site and then loops northeast to follow St. Johns Avenue and former rail lines within the CNC to tie in with existing NS rail lines near the intersection of Noisette Boulevard and Avenue C North. New rail lines (shown in yellow) extend southeast from the Proposed Project Site and tie in with a new CSX rail line to the east of the intersection of Spruill and Kingsworth Avenues, swinging to the east side of a former rail yard along the existing rail lines that parallel Spruill Avenue. The new CSX rail lines (shown in green in Figure 4.1) continue to the southeast along existing rail lines, then loop to the northwest between Herbert and Milford Streets, and continue northwest to tie in with existing rail lines between the intersections of Herbert Street and Cherry Hill Lane with Meeting Street (US Highway 52). The existing CSX rail line then will be upgraded as a Related Activity from this tie-in to its intersection with Misroon Street (shown in purple in Figure 4.1- note that earlier analyses indicated that this upgrade would extend to Accabee Road but the USACE has instructed that all study areas to encompass the Accabee Road area). Existing roads that will be realigned or closed to accommodate the new rail lines and the NB ICTF (all shown in light green in Figure 4.1) include:

- McMillan Avenue between Hobson Avenue and Spruill Avenue to include new intersections with Spruill Avenue, Cosgrove Avenue, Noisette Boulevard, and Hobson Avenue
- Hobson Avenue from Turnbull Avenue to Viaduct Road
- Viaduct Road from Bainbridge to Hobson Avenues

- New roads from Bainbridge Avenue to the new SCSA CNC Marine Container Terminal

The northeast corner of the Proposed Project Site and Alternative 1 abuts CNC Building 32- Central Power Plant, a contributing element of the CNY. The remainder of the CNY lies 300-500 feet to the north, northeast, and east of Alternative 1, with at least one row of buildings between the Proposed Project Site and any elements of the CNY.

The northern rail link will pass adjacent to the southwest corner of the CNC Building M17 (USMC Barracks) parade ground and then loop through the CNH. The rail link will pass through or in close proximity to CNC Buildings M-5, M-6/M7, M8/M9, AA/LL, BB/CC, DD/EE, FF/GG, HH/II, JJ/KK, 762, and 763, and will separate CNC Buildings M-6/M7, M8/M9, FF/GG, HH/II, JJ/KK, and 758-763 from the remaining elements of the CNH. All of these buildings are contributing elements of the CNH and served as residences for officers and staff assigned to the Naval Hospital during its operation. The northern rail link also will pass within 100 feet of the northwest corner of the CNYOQ although contributing elements of this district all stand 800+ feet from the proposed rail line. Note that the northern rail link of Alternative 1 follows the route of a rail line that served NBC during its operation.

The southern rail link will pass approximately 500 feet east of Resource 4306 (Charleston freedman's cottage), with existing rail lines, Spruill Avenue, and a vegetated area between the proposed rail line and the building. The upgraded rail lines pass approximately 150 feet west of Resource 4309 (Charleston freedman's cottage), with Meeting Street and ramps to I-26 between the railroad easements and the building.

Resources 4255 (Chicora Elementary School) and Resource 1663 and 1664 (GARCO Employee Housing) stand 1,200-1,400 feet west of the Proposed Project Site. Resources 1526 (Ben Tillman Graded School) and 1527 (Ben Tillman Homes Neighborhood) stand 700-800 feet west of the Alternative 1 northern rail link. Resource 4254 (Six Mile Elementary School) stands approximately 500 feet from the north end of the upgraded rail lines.

Construction of the NB ICTF in Alternative 1



Figure 4.1 Location and configuration of NB ICTF Alternative 1.

will result in the demolition of existing buildings and infrastructure, the alteration of the ground surface, and the installation of new buildings and structures necessary to support the transfer of marine shipping containers between rail and road vehicles. Construction activities and equipment will alter the current viewsheds and settings of the CNY, CNYOQ, and the CNH and create vibrations and noise that may affect individual elements of these historic properties. Historic properties outside the CNC, although farther removed from the Alternative 1, may suffer the same effects. However, construction activities and vibrations/noise related to them are temporary. They should have no long-term impact on any historic properties except the CNH and possibly CNC building M-7 (USMC Barracks).

Construction of the Alternative 1 northern rail link may require the demolition of a number of contributing elements of the CNH. Even if none of the CNH contributing elements are removed, 11 of its 32 contributing elements will be physically separated from the remainder of the District. This intrusion disrupts the association of the former residences with the former hospital buildings and alters the setting of the District. This will be an adverse effect.

The presence of new industrial buildings and structures within Alternative 1 will not alter the setting of the nearby historic districts to the extent that their NRHP eligibility is compromised. A number of large industrial buildings not included in the CNY stand between the Alternative 1 and the contributing elements of this historic property. The NB ICTF's industrial activities support commercial maritime traffic, rather than the military maritime traffic of the former Navy base. The adaptive reuse of the CNC since the closure of NBC in 1996 has altered the character of the CNC from military to commercial over the last 20 years. Thus, changes in character related to the Project are negligible.

The Alternative 1 northern rail link will pass close to the southwest corner of the parade ground associated with the former CNC Building M17 (USMC Barracks). Like the CNY, this building was originally intended to support the Naval industrial operations of former NBC. Thus, proximity to modern industrial facilities need not alter its setting. However, if much of the parade ground is lost to the rail link and its easement, the relationship of the

building to the parade ground will be lost. Such an alteration of setting likely will result in an adverse effect to this historic property.

Long-term operation of the NB ICTF may create vibrations and noise that may affect the masonry fabric of the buildings in the nearby CNY, CNYOQ, CNH, and CNC Building M17 (USMC Barracks). Although many of these buildings were constructed as industrial facilities or were to support industrial activities and were built to accommodate vibrations and noise associated with the former NBC, the operation of the NB ICTF may generate more noise and vibration. Over many years, this may result in damage to the masonry elements of individual buildings within the nearby historic districts. These effects may vary from minor to major, depending on the extent of the damage. Examples of minor impacts are the degradation of masonry elements over time that will not compromise the structural integrity of the individual buildings or structures. Major impacts would include the degradation of masonry elements to such an extent that a building or structure is in danger of collapse, or the degradation of key structural elements that convey the significance of the building are compromised sufficiently that they are lost or must be removed to prevent the collapse of the building/structure. Periodic monitoring of selected elements of the CNY, CNH, and CNYOQ will be necessary to determine if the operation of the NB ICTF is affecting these historic properties in the future.

Historic properties outside the CNC all lie a sufficient distance from all elements of Alternative 1 that they will not suffer alterations in setting that would compromise their NRHP eligibility. The elements of Alternative 1 closest to these historic properties are rail lines that will follow or parallel existing rail lines. All of the existing rail lines or easements were in place when the majority of these buildings were constructed and have been in use during the occupation and use of the historic properties.

The potential for archaeological sites to exist within Alternative 1 is minimal (cf. Daugherty 2011; Shmookler 1995). Thus, ground-disturbing activities are not likely to damage or destroy archaeological deposits that are eligible for the NRHP.

In summary, the construction and operation of the NB ICTF within Alternative 1 will have an adverse effect on the CNH and possibly on CNC

Building M17 (USMC Barracks). Elements of the CNY, CNH, CNYOQ also may be affected by noise and vibrations related to the operation of the NB ICTF within Alternative 1, requiring monitoring in the future to determine if elements of these historic properties are degrading through exposure to these potential impacts.

4.2.2 Alternative 2 (Proposed Project with Alternate Northern NS Rail Link)

Alternative 2 consists of the same footprint as Alternative 1, with the alteration of the northern NS rail link to the proposed NB ICTF, as shown in Figure 4.2. The southern CSX rail link will be the same as Alternative 1. The northern NS rail link of Alternative 2 extends west from the Proposed Project Site roughly parallel to McMillan Avenue and then turns north paralleling existing rail lines along the east side of Spruill Avenue. Near the intersection of Aragon and Spruill Avenues, the northern NS rail link joins an existing rail line. This existing rail line runs east and then north and will be upgraded as a Related Activity to a point near the intersection of Noisette Boulevard and Avenue B North. Road alterations are the same as Alternative 1 with the addition of the closure of St. Johns Avenue between McMillan Avenue and Reddin Road.

The same historic properties identified near Alternative 1 also lie within or near Alternative 2. Potential effects related to the construction and operation of the NB ICTF within Alternative 2 are similar as well but there are major changes with respect to the CNH and CNC Building M17 (see below). Monitoring of elements of the nearby CNY, CNH, and CNYOQ will be necessary to determine if there are long-term effects to these historic properties. Historic properties outside the CNC (Resources 1526, 1527, 1663, 1664, 4254, 4255, 4306, and 4309) all stand at the same distance and in the same relationship to Alternative 2 as noted for Alternative 1, with the same lack of potential effects. Like Alternative 1, there is little potential for archaeological deposits to be present within Alternative 2 that may be eligible for the NRHP.

The major difference between Alternatives 1 and 2 is the construction of a new northern NS rail link outside the limits of the CNH and farther away from the CNYOQ and CNC Building M17 (USMC

Barracks). This rail link will pass 200-300 south of the CNH at its closest point. CNC Building M17 (USMC Barracks) and its parade ground lie 200 feet north of the new rail link. Also, the CNYOQ lies approximately 1,000 feet east of the Alternative 2 northern NS rail link, with contributing elements 1,800-2,000 feet away.

In summary, Alternative 2 will have no immediate direct effects on any historic properties although noise and vibration related to the operation of the NB ICTF within Alternative 2 will need to be monitored to determine if elements of the CNY, CNH, CNYOQ, or CNC Building M17 are degrading through exposure to these potential impacts.

4.2.3 Alternative 3 (Proposed Project with Alternate Southern CSX Rail Link)

Alternative 3 consists of the same footprint as Alternative 1, with the alteration of the southern CSX rail link to the proposed NB ICTF, as shown in Figure 4.3. The northern NS rail link will be the same as Alternative 1. The southern CSX rail link of Alternative 3 follows the same route southeast from the Proposed Project Site to a point approximately 200 feet east of the intersection of Spruill and Forest Avenues, where it joins an existing rail line. The new southern CSX rail link continues to the south from the existing rail in the same configuration as Alternative 1, joining with existing rail lines that will be upgraded as described for Alternative 1 above. Road alterations are the same as Alternative 1.

The same historic properties identified near Alternative 1 also lie within or near Alternative 3. Potential effects related to the construction and operation of the NB ICTF within Alternative 3 are the same as Alternative 1 with respect to the CNH, CNY, CNYOQ, and CNC Building M17 (see below). Monitoring of elements of the nearby CNY, CNH, and CNYOQ will be necessary to determine if there are long-term effects to these historic properties. Historic properties outside the CNC (Resources 1526, 1527, 1663, 1664, 4254, 4255, 4306, and 4309) all stand at the same distance and in the same relationship to Alternative 3 as noted for Alternative 1, with the same lack of potential effects. Like Alternative 1, there is little potential for archaeological deposits to be present within Alternative 3 that may be eligible for the NRHP.

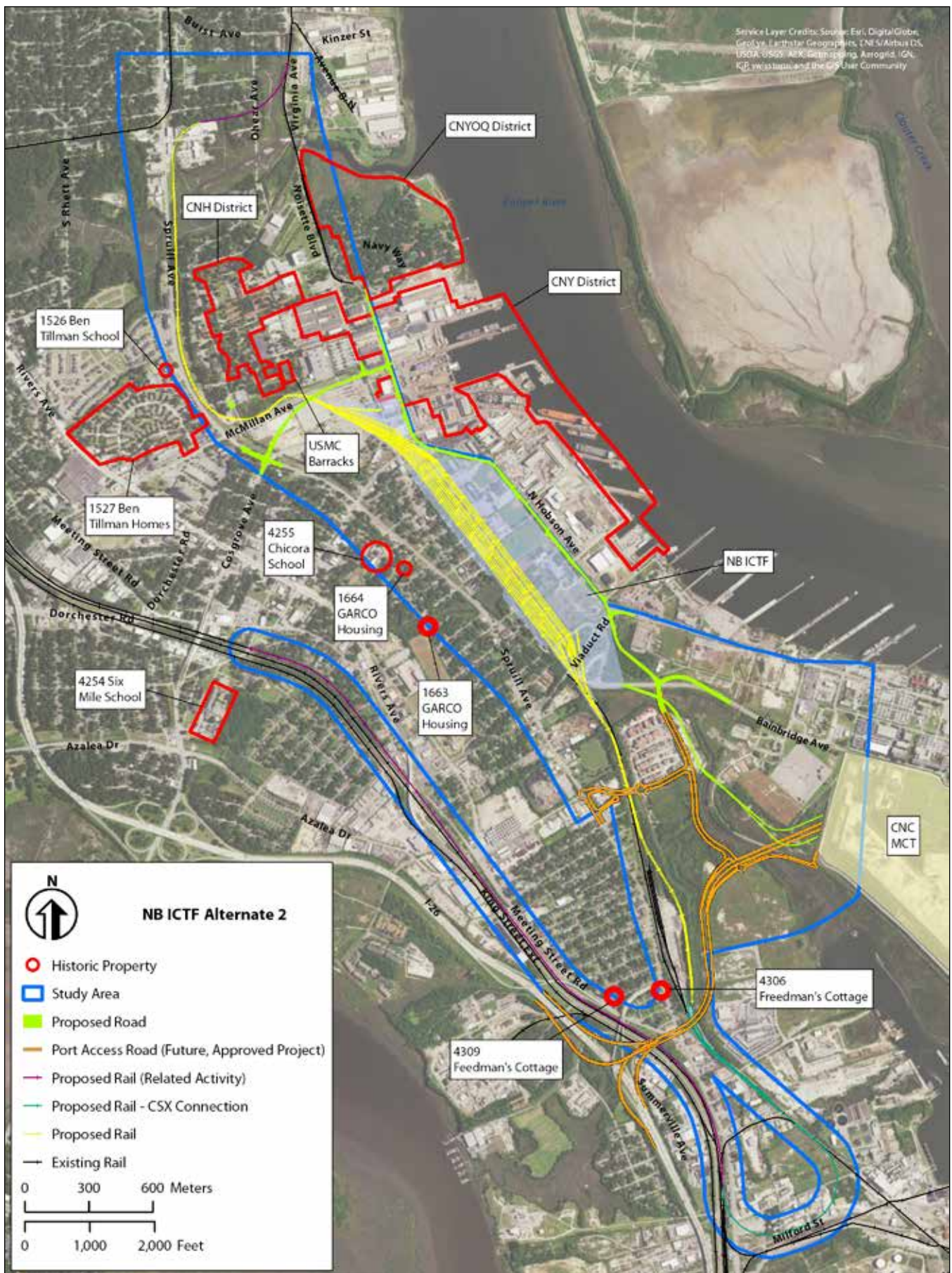


Figure 4.2 Location and configuration of NB ICTF Alternative 2.



In summary, the construction and operation of the NB ICTF within Alternative 3 will have an adverse effect on the CNH and possibly on CNC Building M17 (USMC Barracks). Elements of the CNY, CNH, CNYOQ also may be affected by noise and vibrations related to the operation of the NB ICTF within Alternative 3, requiring monitoring in the future to determine if elements of these historic properties are degrading through exposure to these potential impacts.

4.2.4 Alternative 4 (Proposed Project with Alternate Southern NS and CSX Rail Link)

Alternative 4 consists of the same footprint as Alternative 1, with the alteration of the southern rail link to provide access for both NS and CSX and a reduction in the length of the northern rail link, as shown in Figure 4.4. The northern rail link of Alternative 4 follows the same route as Alternative 1 until it reaches a point to the west of the intersection of Noisette Boulevard and McRitchie Avenue; the link terminates here and provides space for marshalling trains within the NB ICTF. The southern rail link is the same as Alternative 1 between the Proposed Project Site and the tie-in with new rail lines east of the intersection of Spruill and Kingsworth Avenues. Here, new NS (shown in blue in Figure 4.4) and CSX (shown in green in Figure 4.4) rail lines will connect and follow the same route as Alternative 1, looping south between Herbert and Milton Streets to join existing rail lines between US Highways 52 and 78. These existing lines also will be upgraded from the tie-in to near Misroon Street to the northwest as in Alternative 1. Road alterations are the same as Alternative 1.

The same historic properties identified near Alternative 1 also lie within or near Alternative 4, although the CNYOQ lies 500 feet east of the closest portion of the northern rail link, with contributing elements 700+ feet to the east. Potential effects related to the construction and operation of the NB ICTF within Alternative 4 are the same as Alternative 1 with respect to the CNH, CNY, CNYOQ, and CNC Building M17 (see below). Monitoring of elements of the nearby CNY, CNH, and CNYOQ will be necessary to determine if there are long-term effects to these historic properties. Historic properties outside the CNC (Resources 1526, 1527, 1663, 1664, 4254,

4255, 4306, and 4309) all stand at the same distance and in the same relationship to Alternative 4 as noted for Alternative 1, with the same lack of potential effects. Like Alternative 1, there is little potential for archaeological deposits to be present within Alternative 4 that may be eligible for the NRHP.

In summary, the construction and operation of the NB ICTF within Alternative 4 will have an adverse effect on the CNH and possibly on CNC Building M17 (USMC Barracks). Elements of the CNY, CNH, and CNYOQ also may be affected by noise and vibrations related to the operation of the NB ICTF within Alternative 4, requiring monitoring in the future to determine if elements of these historic properties are degrading through exposure to these potential impacts.

4.2.5 Alternative 5 (River Center Site)

Construction and operation of the proposed NB ICTF as Alternative 5 includes new rail lines and supporting infrastructure within the River Center Site, as shown in Figure 4.5 (site is highlighted in transparent red; rail lines in yellow). A new NS rail link extends north from the River Center Site to tie in with existing NS rail lines near the intersection of Noisette Boulevard and Avenue C North. New rail lines (shown in yellow) extend southeast from the River Center Site along Avenue D South and tie in with new CSX rail lines (shown in green) to the east of the intersection of Spruill and Kingsworth Avenues, swinging to the east side of a former rail yard along the existing rail lines that parallel Spruill Avenue. The new CSX rail lines continue to the southeast along existing rail lines, then loop to the northwest between Herbert and Milford Streets, and continue northwest to tie in with existing rail lines between the intersections of Herbert Street and Cherry Hill Lane with Meeting Street (US Highway 52). The existing CSX rail line then will be upgraded from this tie-in to its crossing with Misroon Street (shown in purple). Existing roads that will be realigned or closed to accommodate the new rail lines and the RC ICTF (all shown in light green in Figure 4.5) include:

- Extension of Cosgrove Avenue into the River Center Site to Truxton Avenue
- Turnbull Avenue between Avenues F and H



Figure 4.4 Location and configuration of NB ICTF Alternative 4.

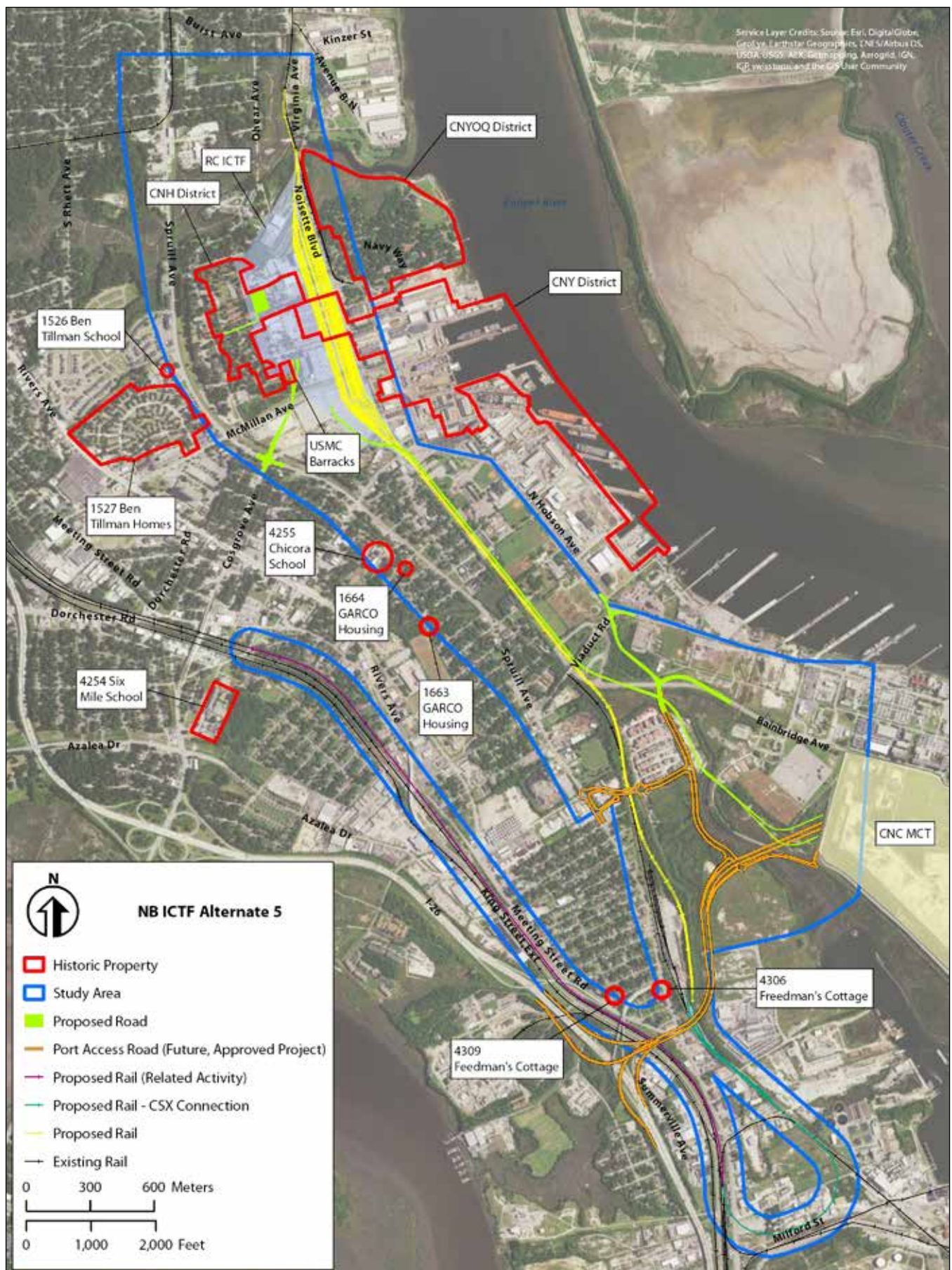


Figure 4.5 Location and configuration of NB ICTF Alternative 5.

- Avenues D South and E South between McMillan and Viaduct Road
- New Hobson to Bainbridge Avenues Connector
- New Road from Viaduct Road to the SCSPA CNC Marine Container Terminal

The same historic properties identified in association with Alternative 1 are also associated with Alternative 5. These include the CNY, CNH, CNYOQ, CNC Building M17 (USMC Barracks), Resource 1526 (Ben Tillman Graded School), Resource 1527 (Ben Tillman Homes), Resources 1663 and 1664 (GARCO Employee Housing), Resource 4254 (Six Mile Elementary School), Resource 4255 (Chicora Elementary School), and Resources 4306 and 4309 (Charleston freedman's cottages). The relationships of Alternative 5 and its various components with the historic properties outside the CNC are the same as Alternative 1. The distance between the historic properties and Alternative 5 and intervening buildings and landscapes limit or preclude effects to these historic properties. Like Alternative 1, there is little potential for archaeological deposits to be present within Alternative 5 that may be eligible for the NRHP.

The relationships of Alternative 5 with historic properties within the CNC are quite different. The River Center Site occupies much of the CNH. CNH Buildings M-3A, NH-45, NH-46, NH-47, NH-49, NH-51, NH-53, NH-61, NH-68 (all contributing elements of the District) will have to be demolished or substantially altered to accommodate the construction and operation of the NB ICTF within Alternative 5. With the exception of Building M-3A, these are the buildings associated with the central operations of the hospital when it functioned; Building M-3A is an associated residence. The 23 remaining buildings (four medical operations buildings and 19 residences) lie to the southwest, west, and northwest. Although these buildings may not be demolished, the removal of much of the former hospital complex permanently alters the relationships of the remaining buildings with the purpose for which they were built. The setting of the CNH will be permanently altered, eliminating the campus-like organization in which the hospital was originally built. These alterations degrade the NRHP eligibility of the CNH substantially and constitute an adverse effect.

CNC Building M17 (USMC Barracks) likely will be demolished as well. The loss of this building is an adverse effect.

Three contributing elements of the CNY (CNC Buildings 64, 66, and 67- warehouses) will have to be demolished. The loss of these buildings from the District will be an adverse effect. The River Center Site also lies adjacent to CNC Buildings 4, 7, 32, and 45 (all contributing elements of the CNY) that serve to connect CNC Buildings 64, 66, and 67 with the remainder of the District.

The River Center Site lies adjacent to the CNYOQ, with contributing elements of the District within 200-300 feet of the NB ICTF Alternative 5. This will create a visual intrusion into the CNYOQ that affects its setting adversely.

Noise and vibrations associated with the construction and the operation of the NB ICTF within Alternative 5 may affect nearby elements of the CNY and CNYOQ. Detailed monitoring of selected buildings will be necessary to determine if any of the contributing elements of these districts degrade as a result of these potential impacts.

In summary, the construction and operation of the NB ICTF within Alternative 5 will have an adverse effect on the CNH, the CNY, the CNYOQ, and on CNC Building M17 (USMC Barracks). Elements of the CNY and CNYOQ also may be affected by noise and vibrations related to the operation of the NBICTF within Alternative 5, requiring monitoring in the future to determine if elements of these historic properties are degrading through exposure to these potential impacts.

4.2.6 Alternative 6 (River Center Site with Alternate Southern CSX Rail Link)

Alternative 6 consists of the same footprint as Alternative 5, with the alteration of the CSX southern rail link, as shown in Figure 4.6. The northern NS rail link of Alternative 5 follows the same route as Alternative 5. The southern rail link is the same as Alternative 5 between the River Center Site and the tie-in with new rail lines east of the intersection of Spruill and Kingsworth Avenues. From here, the new CSX rail link (shown in green in Figure 4.6) continues southeast and then loops to the west and northwest between Kingsworth and Little Avenues to join existing rail lines just north of the Spruill Av-

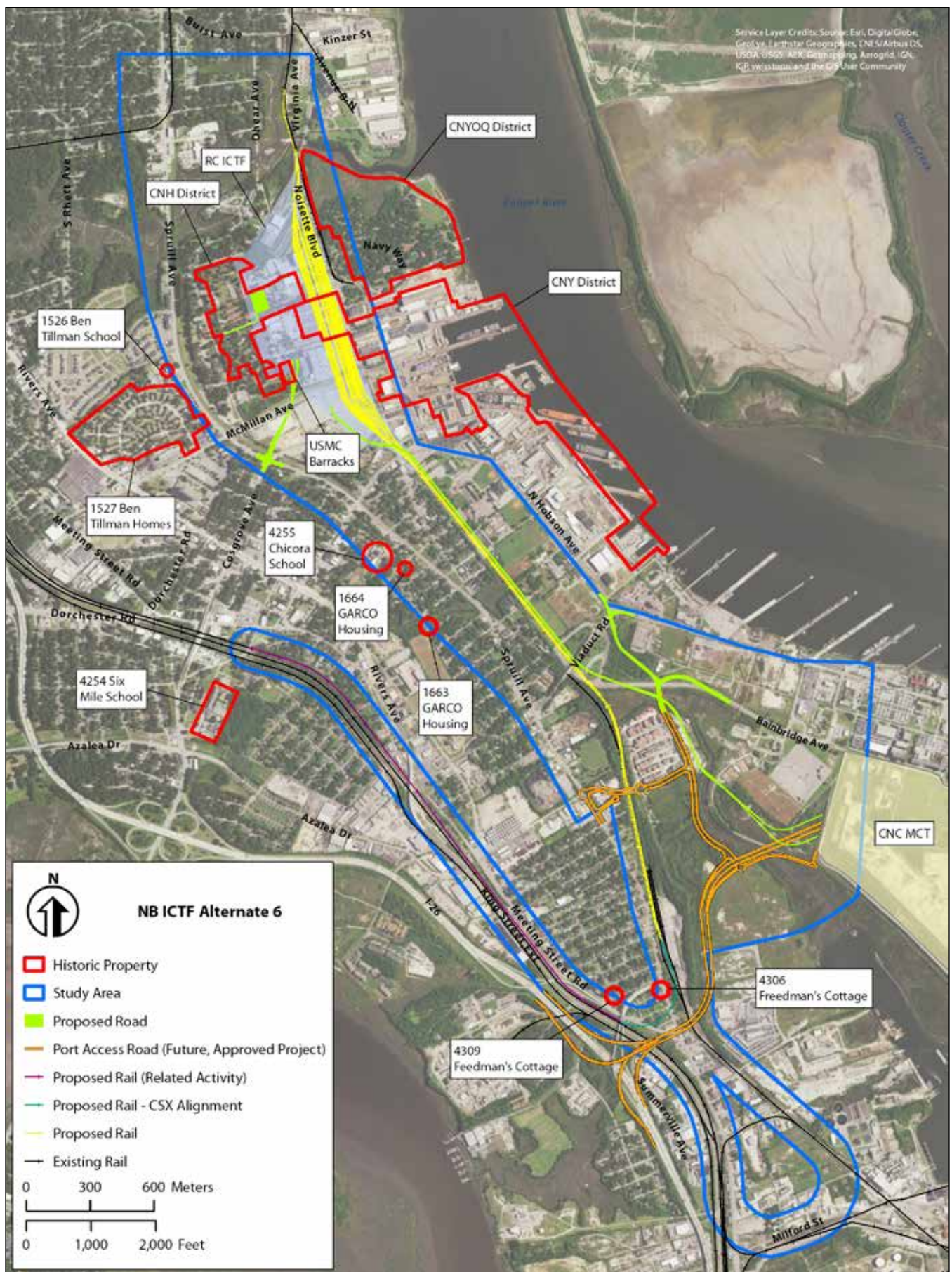


Figure 4.6 Location and configuration of NB ICTF Alternative 6.

enue ramps to I-26. These existing lines also will be upgraded from this tie-in to near the Misroon Street crossing to the northwest as in Alternative 1. Road alterations are the same as Alternative 5.

Alternative 6 has the same relationships with the identified historic properties as Alternative 5. CNC Building M17 (USMC Barracks) and portions of the CNH and CNY will be demolished. Portions of the CNY and CNYOQ lie adjacent to the River Center Site. Noise and vibrations associated with the construction and operation of the NB ICTF within Alternative 6 may degrade elements of these districts. Distance and intervening landscape elements limit or eliminate potential effects to historic properties outside the CNC. Like Alternative 5, there is little potential for archaeological deposits to be present within Alternative 6 that may be eligible for the NRHP.

In summary, the construction and operation of the NB ICTF within Alternative 6 will have an adverse effect on the CNH, the CNY, the CNYOQ, and on CNC Building M17 (USMC Barracks). Elements of the CNY and CNYOQ also may be affected by noise and vibrations related to the operation of the NB ICTF within Alternative 6, requiring monitoring in the future to determine if elements of these historic properties are degrading through exposure to these potential impacts.

4.2.7 Alternative 7 (River Center Site with Alternate Southern NS and CSX Rail Links)

Alternative 7 consists of the same footprint as Alternative 5, with the alteration of the southern rail links to provide access for both NS and CSX and a reduction in the length of the northern rail link, as shown in Figure 4.7. The southern rail link of Alternative 7 follows the same route as Alternative 5 until reaching the tie-ins with new rail links for NS and CSX at the same location as Alternative 4. From here, tie-ins and upgrades to existing rail lines are the same as Alternate 4. Road alterations are the same as Alternative 5.

Alternative 7 has the same relationships with the identified historic properties as Alternative 5. CNC Building M17 (USMC Barracks) and portions of the CNH and CNY will be demolished. Portions of the CNY and CNYOQ lie adjacent to the River Center Site. Noise and vibrations associated with the construction and operation of the NB ICTF within

Alternative 7 may degrade elements of these districts. Distance and intervening landscape elements limit or eliminate potential effects to historic properties outside the CNC. Like Alternative 5, there is little potential for archaeological deposits to be present within Alternative 7 that may be eligible for the NRHP.

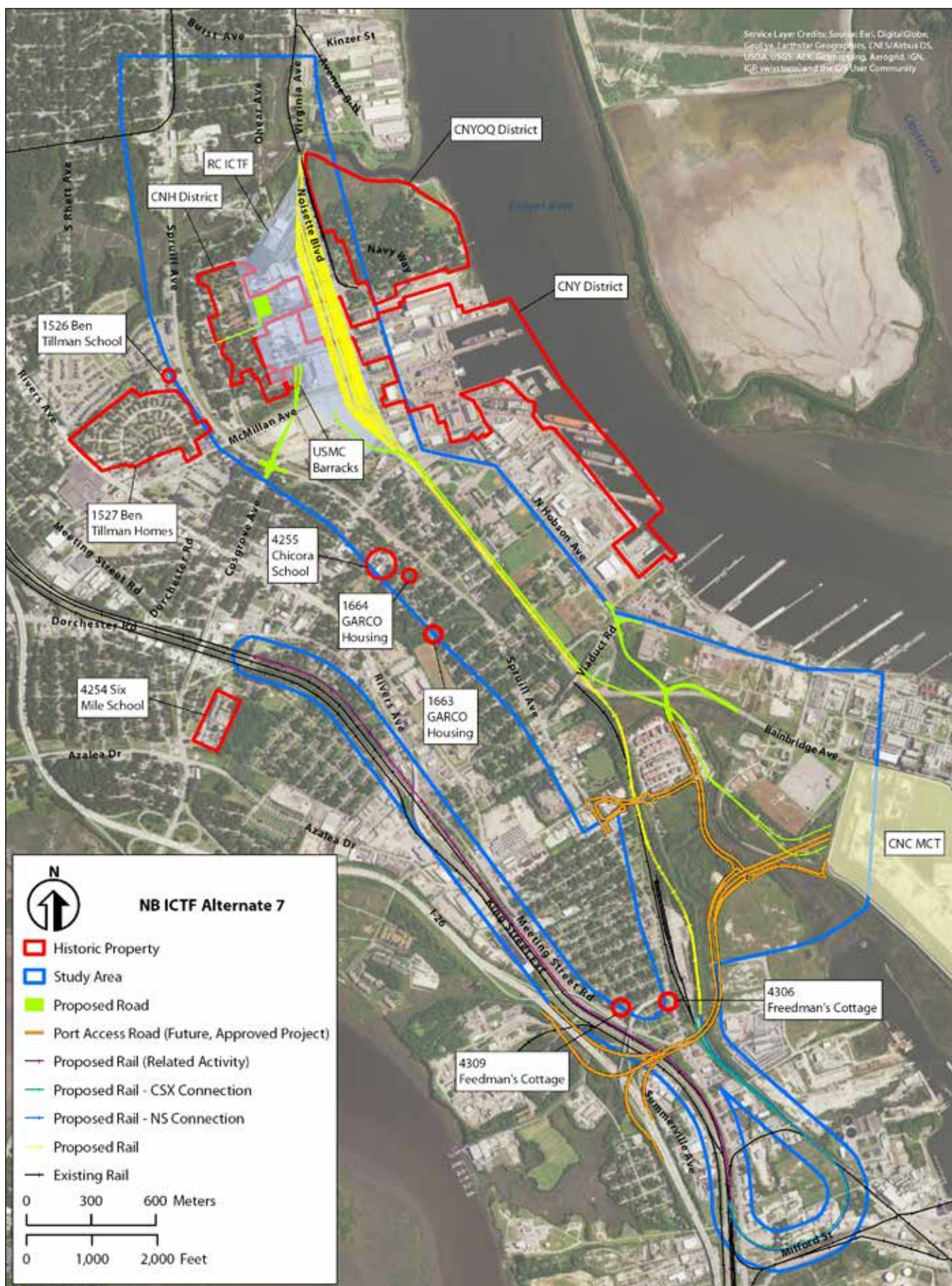
In summary, the construction and operation of the NB ICTF within Alternative 7 will have an adverse effect on the CNH, the CNY, the CNYOQ, and on CNC Building M17 (USMC Barracks). Elements of the CNY and CNYOQ also may be affected by noise and vibrations related to the operation of the NB ICTF within Alternative 7, requiring monitoring in the future to determine if elements of these historic properties are degrading through exposure to these potential impacts.

4.3 Recommendations

4.3.1 Inventory of Historic Properties

Most of the NB ICTF Cultural Resources Study Area has been inventoried for historic properties over the last 20 years by Bean (2011), Fick (1995), Goodwin (1995), Owens et al. (2015), Poplin et al. (2006), and USC Legacy Project (1995). We examined those portions that were not examined by Bean (2011), Owens et al. (2015), and Poplin et al. (2006) to determine if there were historic architectural resources in this portion of the Study Area that may be eligible for the NRHP that were not identified during the earlier inventories. We identified 46 historic architectural resources (6464-6509) of sufficient age and character to be recorded on the South Carolina Statewide Survey. We recommend Resources 6464-6509 not eligible for the NRHP.

Two archaeological sites (38CH1496 and 38CH2153) requiring evaluation for NRHP eligibility have been identified near the NB ICTF Study Area; eight nearby sites and one site within the Study Area all have been determined not eligible for the NRHP. Shmookler (1995) determined that most of the CNC (which comprises much of the NB ICTF Cultural Resources Study Area) possessed a very limited potential to contain archaeological deposits or sites that may be eligible for the NRHP. Daugherty's (2011) survey of the footprint of the proposed ICTF at that time (very similar to the Proposed Project Site) dis-



covered no archaeological deposits within apparently undisturbed areas on the CNC. Thus, there is little or no potential for archaeological sites that may be eligible for the NRHP to exist within any of the proposed alternates for the NB ICTF.

Previous investigations in the NB ICTF Cultural Resources Study Area identified 18 historic properties (three districts, two housing subdivisions, 13 individual buildings [one property contains two buildings], and one structure). Since these resources were initially recorded and determined eligible for the NRHP, four individual buildings (CNC Buildings 1179 and 590-A and Resources 1665 and 4286) and the structure (Resource 1842- Five Mile Viaduct) have been demolished and one of the housing subdivisions (George Legare Homes- Resource 1519) has been demolished and rebuilt in a similar layout. These historic properties cannot be affected by any activities associated with the construction or operation of the NB ICTF or any future undertakings. Also, the Charleston County School District plans to demolish Resource 4255 (Chicora Elementary School) once an earthquake-survivable replacement has been constructed.

We recommend that sufficient inventory of the NB ICTF Cultural Resources Study Area has been completed to identify the historic properties that may be affected by the construction and operation of the NB ICTF.

4.3.2 Assessment of Effect

The extant historic properties (CNY, CNH, and CNYOQ Districts, CNC Building M17- USMC Barracks, , Resource 4254- Six Mile Elementary School, Resource 4255- Chicora Elementary School, Resources 1663 and 1664- GARCO Employee Housing, Resource 1526- Ben Tillman Graded School, Resource 1527- Ben Tillman Homes neighborhood, and Resources 4306 and 4309- Charleston freedman's cottages) lie within and near the proposed alternative locations for the NB ICTF.

Construction and operation of the NB ICTF within Alternative 1 will have an adverse effect on the CNH and possibly on CNC Building M17 (USMC Barracks). Elements of the CNY, CNH, CNYOQ also may be affected by noise and vibrations related to the operation of the NB ICTF within Alternative 1, requiring monitoring in the future to determine if

elements of these historic properties are degrading through exposure to these potential impacts.

Construction and operation of the NB ICTF within Alternative 2 will have no immediate direct effect on any historic properties, although noise and vibration related to the operation of the NB ICTF within Alternative 2 will need to be monitored to determine if elements of the CNY, CNH, CNYOQ, or CNC Building M17 are degrading through exposure to these potential impacts.

Construction and operation of the NB ICTF within Alternative 3 will have an adverse effect on the CNH and possibly on CNC Building M17 (USMC Barracks). Elements of the CNY, CNH, and CNYOQ also may be affected by noise and vibrations related to the operation of the NB ICTF within Alternative 3, requiring monitoring in the future to determine if elements of these historic properties are degrading through exposure to these potential impacts.

Construction and operation of the NB ICTF within Alternative 4 will have an adverse effect on the CNH and possibly on CNC Building M17 (USMC Barracks). Elements of the CNY, CNH, and CNYOQ also may be affected by noise and vibrations related to the operation of the NB ICTF within Alternative 4, requiring monitoring in the future to determine if elements of these historic properties are degrading through exposure to these potential impacts.

Construction and operation of the NB ICTF within Alternative 5 will have an adverse effect on the CNH, the CNY, the CNYOQ, and on CNC Building M17 (USMC Barracks). Elements of the CNY and CNYOQ also may be affected by noise and vibrations related to the operation of the NB ICTF within Alternative 5, requiring monitoring in the future to determine if elements of these historic properties are degrading through exposure to these potential impacts.

Construction and operation of the NB ICTF within Alternative 6 will have an adverse effect on the CNH, the CNY, the CNYOQ, and on CNC Building M17 (USMC Barracks). Elements of the CNY and CNYOQ also may be affected by noise and vibrations related to the operation of the NB ICTF within Alternative 6, requiring monitoring in the future to determine if elements of these historic properties are degrading through exposure to these potential impacts.

Construction and operation of the NB ICTF within Alternative 7 will have an adverse effect on the CNH, the CNY, the CNYOQ, and on CNC Building M17 (USMC Barracks). Elements of the CNY and CNYOQ also may be affected by noise and vibrations related to the operation of the NB ICTF within Alternative 7, requiring monitoring in the future to determine if elements of these historic properties are degrading through exposure to these potential impacts.

There is sufficient distance and intervening buildings or landscapes between all of the historic properties within or near the NB ICTF Cultural Resources Study Area but outside the CNC to prevent any effects related to the construction or operation of the NB ICTF.

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Appendix A

SHPO Correspondence



DEPARTMENT OF THE NAVY
SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
P.O. BOX 190010
2155 EAGLE DRIVE
NORTH CHARLESTON, S.C. 29419-9010

FILE COPY

Code 064RJ
12 June 1995

Mr. George Vogt, SHPO and Director
Department of Archives and History
State of South Carolina
Post Office Box 1169
Columbia, South Carolina 29211

Re: PROGRAMMATIC AGREEMENT AMONG: THE DEPARTMENT OF
THE NAVY, SOUTH CAROLINA STATE HISTORIC
PRESERVATION OFFICER, AND THE ADVISORY COUNCIL ON
HISTORIC PRESERVATION FOR THE: BASE CLOSURE AND
DISPOSAL OF THE NAVAL BASE CHARLESTON, SOUTH
CAROLINA

Dear Mr. Vogt:

I am enclosing the subject document which is the result of extended consultation by the Navy with your staff, the Advisory Council on Historic Preservation, the National Trust for Historic Preservation (Southeastern Region), and local interested parties including the Charleston Naval Complex Redevelopment Authority.

This document is being sent to you in an original and five (5) copies. It is requested that once you have reviewed and signed the document in the appropriate space, that the original and all copies then be forwarded to the Advisory Council on Historic Preservation (Eastern Office of Project Review) for their review and signature. You will notice that the document has already been signed by Rear Admiral L.N. Oden, Commander of Naval Base Charleston, and Arthur Ravenel, Jr., Chairman of the Charleston Naval Complex Redevelopment Authority.

By copy of this correspondence, I am advising the Advisory Council on Historic Preservation that the document has been forwarded to you, and that they will be receiving the document within the next 35-40 days, if not, hopefully, sooner. Please accept our gratitude for the professional and willing assistance provided us by your staff over the past year and a half. Should you have any questions, please contact me at (803) 743-0990.

Sincerely,

R.N. JOHNSON
Historic Preservation Officer

Copy to:
Advisory Council on Historic Preservation (Attn: Ms. Druscilla Null)

PROGRAMMATIC AGREEMENT

AMONG:

THE DEPARTMENT OF THE NAVY,
SOUTH CAROLINA STATE HISTORIC PRESERVATION OFFICER,
AND
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION

FOR THE:

BASE CLOSURE AND DISPOSAL OF
THE NAVAL BASE CHARLESTON, SOUTH CAROLINA

May 1995

WHEREAS the United States Navy (Navy) is responsible for implementation of applicable provisions of the Base Closure and Realignment Act of 1990 (P.L. 101-510 [1990]); and

WHEREAS the Navy is proceeding with realignment of functions and units, closure of installations, and disposal of excess and surplus property in a manner consistent with the "Report of the President's Commission on Base Realignment and Closures", dated July 1, 1993 (Commission Report); and

WHEREAS the Navy has determined that closure, interim leasing, and licensing, and/or disposal of portions of Naval Base Charleston (NAVBASE), South Carolina, will have an effect upon properties that are eligible for listing in the National Register of Historic Places (hereinafter referred to as "historic properties"), and has consulted with the South Carolina State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (Council) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C., Section 470f), Section 110(f) of the same Act (16 U.S.C., Section 470h.2[f]), and Section 111 of the same Act (16 U.S.C., Section 470h.3); and

WHEREAS the historic properties include Archeological Site #38CH1496 and those properties and structures within three (3) historic districts known as the Industrial District, the Hospital District, and the Housing District plus four (4) individual historic properties, (Appendices 1, 2, 3, and 4), as formally determined eligible for listing in the NRHP through consultation and consensual agreement between the SHPO and the Navy in correspondence dated August 18, 1994 (Appendix 5); and

WHEREAS appropriate restrictive devices have been prepared to protect these properties in the event of lease (Appendix 6) or transfer/sale (Appendices 7 and 8); and

WHEREAS there is an agreed upon mechanism for the amendment of this document as

future circumstances may require (Appendix 9); and

WHEREAS interested members of the public, including the Charleston Naval Complex Redevelopment Authority, the National Trust for Historic Preservation, the Historic Charleston Foundation, the Preservation Society of Charleston, and the various local governments have been provided an opportunity to comment on the effects this Base Closure and Disposal action may have on historic properties at Naval Base Charleston, and the Charleston Naval Complex Redevelopment Authority has been invited to concur with this Agreement; and

NOW, THEREFORE, the Navy, the SHPO, and the Council agree that the undertaking shall be implemented in accordance with the following stipulations to take into account the effect of the undertaking on the historic properties.

STIPULATIONS

The Navy will ensure that the following stipulations are implemented:

I. Architectural and Archeological Properties

A. For the purposes of this Agreement, it is understood that:

1. The Navy will ensure that lessees, in consultation with the SHPO, will develop a reuse plan for any historic properties leased. Navy will encourage new property owner(s), in consultation with the SHPO, to develop a plan for the adaptive reutilization of historic properties which is consistent with the protective covenants attached.

2. Indirect effects of alternative re-uses on the historic properties will be examined in the Navy's National Environmental Policy Act (NEPA) documentation covering installation reuse. The SHPO's comments will be included in this report.

II. Interim Protection

A. The Navy shall ensure that any historic property that is vacated pending realignment and/or disposal is maintained and preserved pursuant to the Secretary of the Interior's *Standards for Rehabilitation and the Guidelines for Rehabilitating Historic Buildings*, *Charleston Naval Shipyard Facility Layaway Standards*, and *NAVFAC MO-913, Historic Structures Preservation Manual* (collectively referred to as "standards") to minimize deterioration.

B. The Navy shall submit annual reports to the SHPO identifying those historic buildings which have been vacated and the actions taken to secure, protect, and preserve the

properties. The first report shall be submitted in October 1995. Subsequent reports shall be submitted each October thereafter, including a list of all historic properties transferred out of Navy jurisdiction and the recipient of that property, until all historic properties have been transferred.

C. While an historic property remains under the Navy's jurisdiction, the Navy will ensure that the South Carolina SHPO has the opportunity to review and comment on any undertaking affecting such property, except those exempted in Stipulation III, before the undertaking is initiated. If the undertaking involves demolition of the property, or if the SHPO determines that the undertaking does not meet the Standards referenced in Stipulation II.A. above, the Navy will contact the Council and review will proceed pursuant to 36 CFR Part 800.

D. The Navy will give full consideration to interim protection of properties through the execution of interim leases or management agreements pursuant to Section 111 of the National Historic Preservation Act of 1966, as amended (Act).

III. Exempt Activities

Pending the transfer of historic properties out of Navy ownership, the following activities proposed by the Navy, or any of its lessees or licensees, are specifically exempt from review by the SHPO:

A. Activities which will not alter the characteristics which qualify a property for inclusion in the NRHP.

B. Activities involving non-historic properties which will have no impact upon historic properties.

C. In-kind street and parking area resurfacing, where no additional right-of-way is required within a historic district.

D. Routine maintenance within a historic district which consists of the following:

1. Removal of dead or unsalvageable trees.
2. Modifications to interiors of non-contributing buildings.
3. Minor, in-kind repair or replacement of building or site features, elements or materials of non-contributing buildings.
4. Minor, in-kind replacement of building or site features as part of emergency repair, or routine maintenance not part of a larger project.

5. Those repair and/or maintenance actions carried out in conformance to the standards and procedures contained in *NAVFAC MO-913, Historic Structure Preservation Manual, Charleston Naval Shipyard Facility Layaway Standards*, and/or the Secretary of Interior's Standards.

E. Installation of heating, ventilation, and air conditioning (HVAC) equipment, plumbing, and electrical systems, where such activities do not affect the visual character of historic properties or contributing properties within a historic district.

F. Environmental restoration and remediation of hazards which pose a threat to human health and the environment, but do not have the potential to affect historic property(ies).

IV. Recordation of Historic Properties

The Navy will be responsible for the recordation of historic properties, buildings, structures, and districts as described in the following:

A. Prior to the demolition, alteration or rehabilitation which is deemed to be an adverse effect, based on review pursuant to Stipulation II(c), on any contributing building or structure within the properties of NAVBASE, provided that property is still under the jurisdiction of the Navy, the Navy shall contact the National Park Service to determine what level of documentation is required to record the property to be affected.

B. The Navy shall ensure that all documentation so prepared is completed and accepted by the Historic American Building Survey/Historic American Engineering Record (HABS/HAER) prior to demolition or any undertaking determined to be an adverse effect upon the property through consultation with the SHPO, and that copies of this documentation are provided to the SHPO.

V. Environmental Remediation

A. The Navy may treat and/or demolish historic properties that are an immediate threat to health and safety due to: unsafe conditions of the structure; contamination by hazardous, toxic, and/or radiological (HTR) substances; natural disasters; and will notify the SHPO and Council prior to treatment or demolition and the SHPO shall provide the response within two (2) working days. The Navy shall consult with the SHPO in the development of plans for the treatment of other historic properties which require remediation due to hazardous circumstances, as they arise.

B. Emergency undertakings shall be handled in accordance with 36 CFR 800.12.

VI. Licenses, Leases and Transfers of Property

A. The Navy shall license, lease, transfer and/or dispose of parcels at NAVBASE which contain historic properties or which are in proximity to historic districts, as may be necessary or appropriate to meet the goals and objectives of the Base Realignment and Closure legislation. Such license, lease, transfer and/or disposal actions shall include protective covenants attached as Appendices 6, 7 and 8.

B. Except for those activities described elsewhere within this agreement as "Exempt Activities", prior to any construction, alteration, rehabilitation, demolition, disturbance of the ground surface, or any other action affecting historic properties or districts, the lessee or sublessee (Lessee) or licensee or other authorized occupant (Licensee) shall submit plans and specifications for the proposed action to the Navy for review and, following consultation pursuant to Stipulation II(c), approval. If the Lessee or Licensee cannot adhere to the conditions provided by the SHPO, the Lessee or Licensee shall so notify the Navy. If the disagreement over the conditions cannot be resolved, the Navy shall request the comments of the Council in accordance with the Stipulation entitled "Dispute Resolution" contained elsewhere within this agreement.

VII. Public Benefit Transfers/Title XXIX Conveyance

Public benefit transfers of historic properties to local non-federal entities (as authorized in Title XXIX of the National Defense Authorization Act of 1994) will include appropriate preservation covenants, as set forth in Appendices 7 and 8. Federal agency recipients will be responsible for compliance with Sections 106 and 110 of the NHPA with respect to those properties. The Navy will notify the SHPO and the Council in writing of each entity which requested and had property assigned to it pursuant to this stipulation and the Navy shall remind receiving Federal agencies of their NHPA responsibilities.

VIII. Public Sale

1. If the Navy determines that any or all of the historic properties should be offered for sale to the public, the Navy, in consultation with the SHPO and the Council, will prepare a marketing plan for that portion of NAVBASE containing the historic properties not yet disposed. The Navy will afford the SHPO 30 days to review and comment on the marketing plan. Should the SHPO not respond within thirty days, the Navy will assume the SHPO's concurrence in the plan. Upon receipt of the SHPO's comments on the marketing plan, the Navy will take the SHPO's comments into account prior to implementing the plan. As a minimum, the plan shall include the following:

- a. Clear, representative photographs of the property;

- b. A floor plan of each historic property indicating available square footage;
- c. A map(s) showing the historic property's location on NAVBASE and within a historic district (if applicable);
- d. Information about the property's historical significance;
- e. Notification of the requirements for the inclusion of protective covenants in transfer documents;
- f. A distribution list of potential purchasers or transferees;
- g. An advertising plan and schedule; and
- h. A schedule for receiving and reviewing offers

2. The Navy will ensure that the instrument transferring the property will incorporate the appropriate covenants attached hereto as Appendices, and that the covenants will be recorded in the real estate records of Charleston County, State of South Carolina.

3. If the Navy receives no acceptable offer due to conformance with the recommended approaches contained within this Agreement and its Appendices, the Navy, in consultation with the SHPO, the Council, and the interested parties may:

- a. Modify the requirement(s) to rehabilitate or maintain one or more properties in such a way as to preserve one or more specified character-defining attributes; or,
- b. Waive the requirement to rehabilitate or maintain one or more properties in such a way as to preserve one or more specified character-defining attributes; and
- c. If marketing with these changes fails, and after consultation with the SHPO, Council, and other interested parties, the Navy may transfer the property without a preservation covenant.

IX. Dispute Resolution

Should the SHPO object within thirty (30) days to any proposed action pursuant to this Agreement as it relates to Licensees, Lessees, or the Navy as caretaker, the Navy shall consult

with the SHPO to resolve the objection. If the Navy determines that the objection cannot be resolved, the Navy shall forward all documentation relevant to the dispute to the Council. Within 30 days after receipt of all pertinent documentation, the Council will either: (1) provide the Navy with recommendations, which the Navy will take into account in reaching a final decision; or (2) comment pursuant to 36 CFR Part 800.6(b). Any Council comments provided shall be taken into account by the Navy in accordance with 36 CFR Part 800.6(c)(2) with reference only to the subject of the dispute. The Navy's responsibility to carry out all actions under this Agreement that are not the subject(s) of the dispute will remain unchanged.

X. Anti-Deficiency Act

A. All requirements set forth in this Agreement requiring the expenditure of Navy funds are expressly subject to the availability of appropriations and the requirements of the Anti-Deficiency Act (31 U.S.C. Section 1341). No obligation undertaken by the Navy under the terms of this Agreement shall require or be interpreted to require a commitment to expend funds not appropriated for a particular purpose.

B. If the Navy cannot perform any obligation set forth in this Agreement due to the unavailability of funds, the Navy, the SHPO, and the Council intend the remainder of the Agreement to be executed. Any obligation under the Agreement which cannot be performed due to the unavailability of funds must be renegotiated between the Navy, the SHPO, and the Council.

XI. Annual Review

1. One year after the execution of this agreement, and annually thereafter until all historic property within NAVBASE has been transferred out of Navy jurisdiction, the Navy will host a meeting of the parties to this agreement with other interested parties, to review implementation of Stipulations set forth in this document, and determine whether additional measures are needed to protect the character and integrity of the historic properties. The Navy will ensure that any measures agreed upon are implemented for so long as the property remains under Navy jurisdiction.

XII. Amendments

Any party to this Agreement may request that it be amended, whereupon the parties will consult in accordance with 36 CFR Part 800.13 to consider such amendment. Format for recommended amendments is provided as Appendix 9.

EXECUTION of this Agreement and implementation of its terms evidence that the Navy has afforded the Council an opportunity to comment on the closure and disposal of the Naval Base Charleston, South Carolina, and its effects on historic properties, and that the Navy has taken into account the effects of the undertaking on historic properties.

FOR THE DEPARTMENT OF THE NAVY:

By: L. N. Oden Date: 31 May 1995
L. N. ODEN
Rear Admiral, U.S. Navy
Commander, Naval Base, Charleston

FOR THE SOUTH CAROLINA STATE HISTORIC PRESERVATION OFFICER:

By: _____ Date: _____
Mary Watson Edmonds
Deputy State Historic Preservation Officer
South Carolina Department of Archives and History

FOR THE ADVISORY COUNCIL ON HISTORIC PRESERVATION:

By: _____ Date: _____
Robert D. Bush
Executive Director
Advisory Council on Historic Preservation

CONCUR:

By: Arthur Ravenel, Jr. Date: 6/9/95
Arthur Ravenel, Jr.
Chairman
Charleston Naval Complex Redevelopment Authority

APPENDIX 1

NAVAL BASE CHARLESTON PROPERTIES ELIGIBLE FOR INCLUSION IN THE NATIONAL REGISTER OF HISTORIC PLACES

CHARLESTON NAVAL SHIPYARD HISTORIC DISTRICT:

Bldg. 2	Bldg. 2A	Bldg. 3	Bldg. 4 ⁽ⁿ⁾	Bldg. 5
Bldg. 6	Bldg. 7 ⁽ⁿ⁾	Bldg. 8 ⁽ⁿ⁾	Bldg. 9	Bldg. 10
Bldg. 13 ⁽ⁿ⁾	<u>Bldg. 32⁽ⁿ⁾</u>	Bldg. 35	Bldg. 43	Bldg. 44
Bldg. 46	Bldg. 56	Bldg. 57	Bldg. 58A	Bldg. 59
Bldg. 62	Bldg. 63 ⁽ⁿ⁾	Bldg. 64	Bldg. 74	Bldg. 80
Bldg. 84	Bldg. 95	Bldg. 96	Dry Dock 301	Dry Dock 302
Bldg. 302B	Dry Dock 303	Bldg. 303B	Dry Dock 304	Pier 314
Blkhd 317A	Blkhd 317B	Pier 317C	Pier 317D	Pier 317E
Pier 317F	Blkhd 333	Bldg. 342	Bldg. 351	Blkhd 352
Blkhd 354	Blkhd 356	Bldg. 1119	Bldg. 1127	Bldg. 1138
Bldg. 1190	Bldg. 1298	Bldg. 1299	Bldg. NSC 45	Bldg. NSC 66
Bldg. NSC 67				

CHARLESTON NAVAL HOSPITAL HISTORIC DISTRICT:

Bldg. NH 45	Bldg. NH 46	Bldg. NH 47	Bldg. NH 48	Bldg. NH 49
Bldg. NH 50	Bldg. NH 51	Bldg. NH 52	Bldg. NH 53	Bldg. NH 54
Bldg. NH 55	Bldg. NH 61	Bldg. NH 68	Bldg. 78	Bldg. 520B
Bldg. 758	Bldg. 759	Bldg. 760	Bldg. 761	Bldg. 762
Bldg. 763	Qtrs. CC-BB	Qtrs. EE-DD	Qtrs. GG-FF	Qtrs. HH-II
Qtrs. JJ-KK	Qtrs. LL-AA	Bldg. M-1A	Bldg. M-2A	Bldg. M-3A
Bldg. M-5	Bldg. M6-M7	Bldg. M8-M9		

NAVAL BASE SENIOR OFFICER HOUSING HISTORIC DISTRICT:

Qtrs. A	Qtrs. B	Qtrs. C	Qtrs. D	Qtrs. F
Qtrs. G	Qtrs. H-I	Qtrs. J	Qtrs. K	Qtrs. L
Qtrs. M	Qtrs. N	Qtrs. O	Qtrs. P	Qtrs. Q
Qtrs. R	Qtrs. S	Qtrs. T	Qtrs. W-X	Qtrs. Y-Z
Bldg. 1101	Bldg. 1284	Bldg. 1285	Bldg. 1287	
Bldg. 1289				

INDIVIDUALLY ELIGIBLE STRUCTURES:

Bldg. M-17	Bldg. 590-A	Bldg. 1179
------------	-------------	------------

"Dead House"

*Appendix 4 shows
Dead House in
Officers' Hsg Hist Dist -
why identified
individually
well?*

APPENDIX 1 (con't)

NOTE: The structural system of all historic properties is considered to be significant and contributory to its eligibility for inclusion in the National Register of Historic Places.

SIGNIFICANT INTERIOR FEATURES OF SELECTED BUILDINGS:

Charleston Naval Shipyard District:

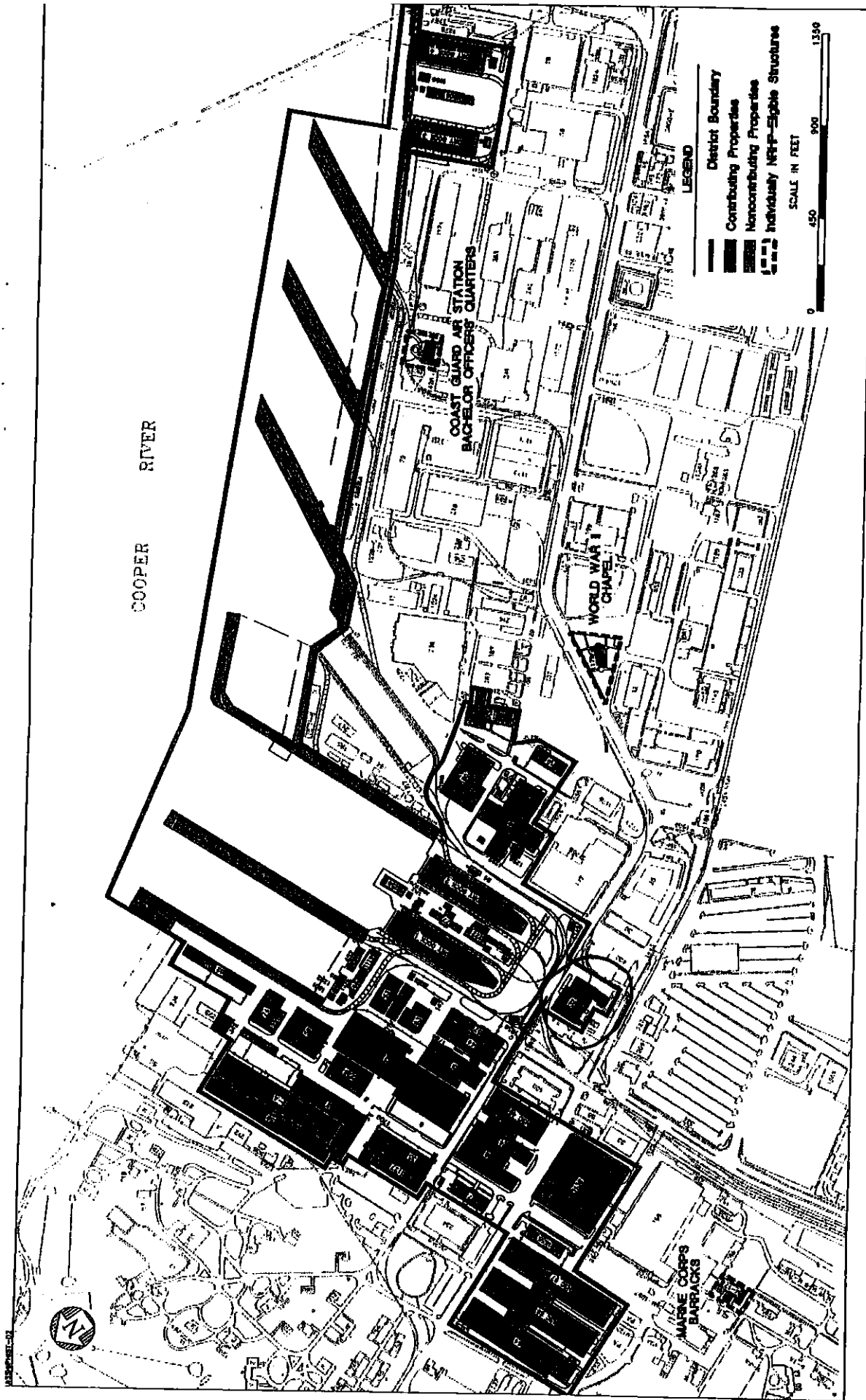
- (1) Building #4 entrance lobby and stair are significant characteristics to its eligibility.
- (2) Building #7's vestibule, entrance lobby and stair, interior door and window trim, chair rails, and baseboards are considered significant characteristics to its eligibility.
- (3) Buildings # 8, 8A contain many interior features including, but not limited to, lobbies, stairs, offices and corridors which define its historic character. Significant features and materials include, but are not limited to: plaster walls and ceilings; skylights; historic doors, transoms, and related trim; window trim; baseboards; wainscot; historic light fixtures; coved plaster ceilings; and chair rails which are significant characteristics to its eligibility.
- (4) Building #13's entrance lobby and stair, as well as its interior door and window trim, are considered significant characteristics to its eligibility.

* (5) Building #32's entrance lobby and stair, as well as its interior door and window trim, are considered significant characteristics of its eligibility.

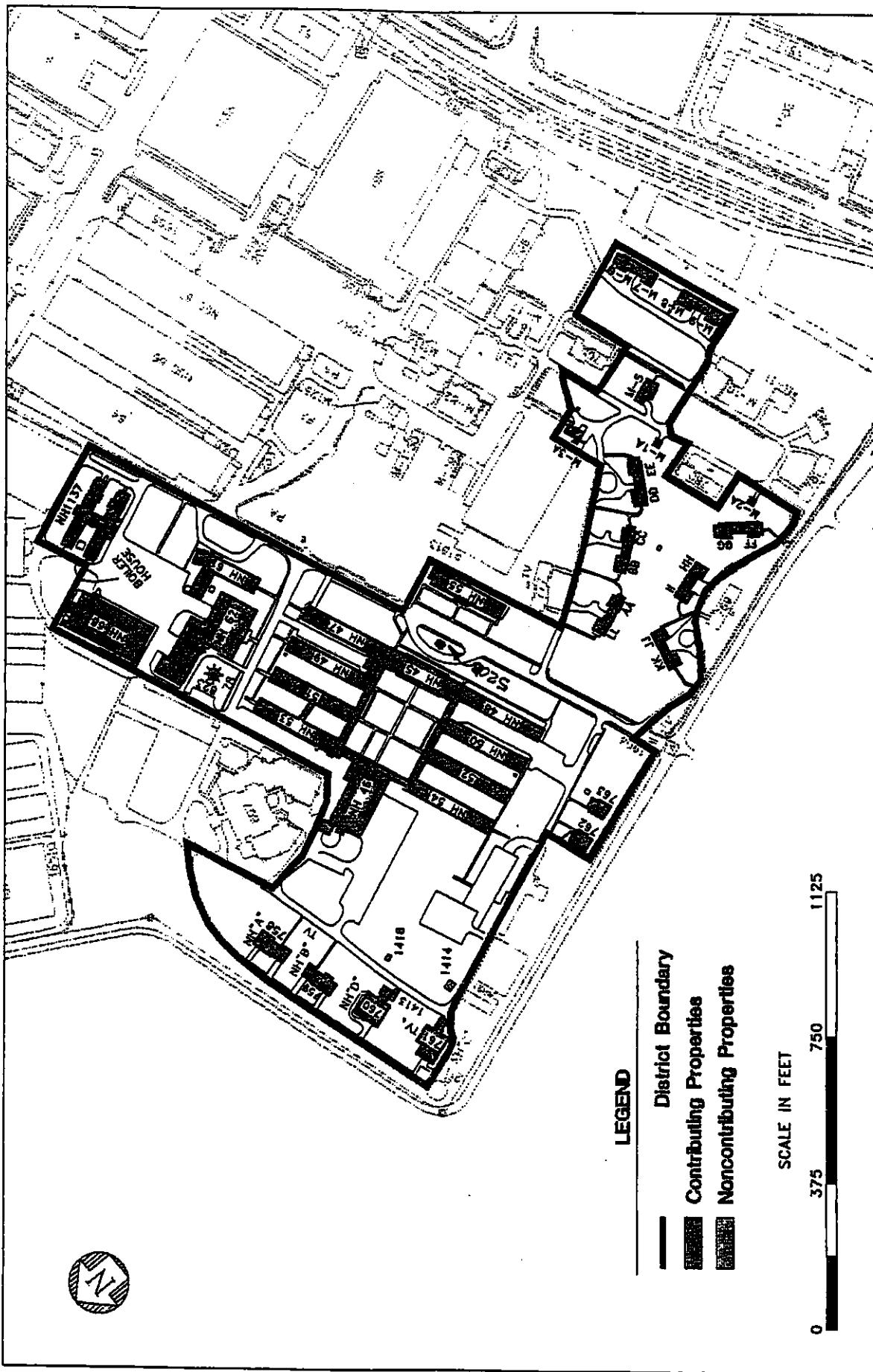
- (6) Building #63's entrance lobby and stair are considered significant characteristics of its eligibility.

Charleston Naval Hospital District, Naval Base Senior Officer Housing District, and Individually Eligible Structures:

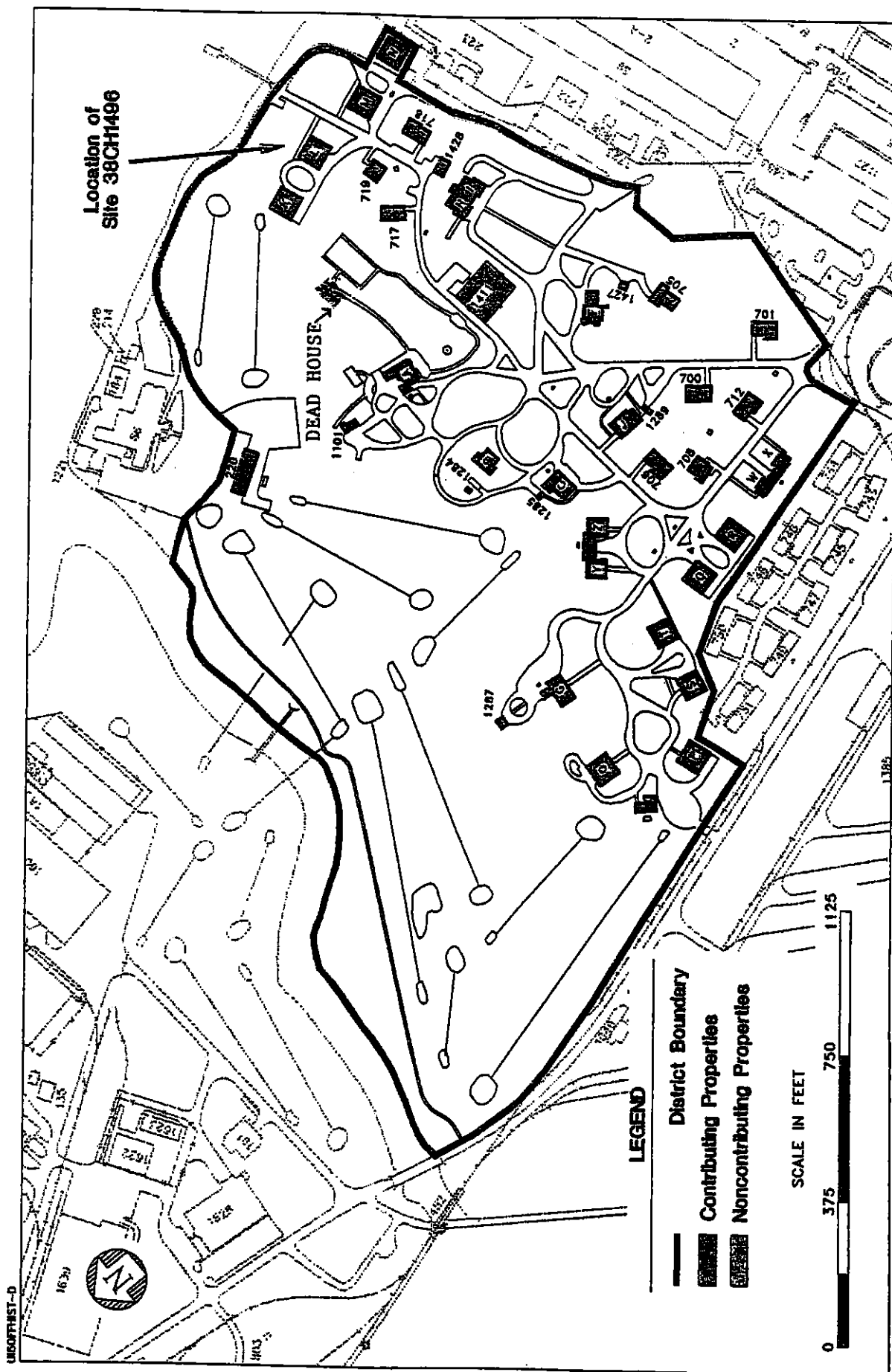
- (1) The interiors of eligible properties located in the Hospital District, the Senior Officer Housing District, and the Individually Eligible Structures have not been examined and evaluated by the SHPO staff at the time of preparation of this document. This examination and evaluation will take place during late May/early June 1995, and if significant interior features are found, this document will be amended pursuant to Stipulation XII and Appendix 9. In the interim, all interior modifications, repair, and maintenance on the interiors of these eligible properties will be held in abeyance pending this examination and evaluation.



NAVAL SHIPYARD
HISTORIC DISTRICT AND
INDIVIDUALLY NRHP-
ELIGIBLE STRUCTURES
APPENDIX 2



NAVAL HOSPITAL HISTORIC DISTRICT



OFFICER'S HOUSING HISTORIC DISTRICT

APPENDIX 6

LEASE PRESERVATION CLAUSE

Building number(s) XXX are eligible for inclusion in the National Register of Historic Places. Lessee will coordinate any proposed aesthetic, structural or landscape alterations to this (these) building(s) with the Navy and the South Carolina State Historic Preservation Officer (SHPO) prior to undertaking said alterations. Any approved aesthetic, structural or landscape alterations to this (these) building(s) must be done in accordance with the Secretary of the Interior's *Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* (U.S. Department of the Interior, National Park Service) and will be the subject of consultation between the Lessee, the Navy, and the South Carolina SHPO.

APPENDIX 7

STANDARD ARCHITECTURAL PRESERVATION COVENANT

XXX. Grantee hereby covenants on behalf of itself, its successors and assigns, to the South Carolina State Historic Preservation Officer (SHPO) to preserve and maintain (*name of property*) located in the County of Charleston, State of South Carolina, more particularly described as (*legal description*), in a manner that preserves and maintains the attributes that contribute to the eligibility of the [*name of historic property*], of which said real property is a part, for the National Register of Historic Places. Such attributes include exterior features (including facades and fenestration, scale, color, materials, and mass), interior features determined significant by the South Carolina SHPO, and views from, to, and across the property.

(1) The [*name of property*] will be preserved and maintained in accordance with The Secretary of Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (National Park Service). No construction, alteration, rehabilitation, remodeling, demolition, disturbance of the ground surface, or other action shall be undertaken or permitted to be undertaken on (*name of property*) that would materially affect the integrity or the appearance of the attributes described above without the prior written permission of the South Carolina State Historic Preservation Officer (SHPO), and signed by a fully authorized representative thereof. *

(2) Upon acquisition of the property, the Grantee will take prompt action to secure the property from the elements, vandalism, and arson, and will undertake any stabilization that may be required to prevent deterioration. Grantee will make every effort to retain or reuse, to the extent practicable, the historic structures.

(3) In the event that archeological materials are encountered during construction or ground-disturbance activities, work shall cease in the immediate area until the SHPO is consulted and provides written permission to recommence work. Should the SHPO require, as a condition of the granting of such permission, that the Grantee conduct archeological survey data recovery operations or other activities designed to mitigate the potential adverse effect of the proposed activity on the *archeological resources* the Grantee shall at his/her/its own expense conduct such activities in accordance with the Secretary of the Interior's Standards and Guidelines for Archeological Documentation (48 FR 44734-37) and such standards and guidelines as the SHPO may specify, including, but not limited to, standards and guidelines for

research design, field work, analysis, preparation and dissemination of reports, disposition of artifacts and other materials, consultation with Native American or other organizations, and re-interment of human remains.

(4) The Grantee will allow the South Carolina SHPO or his/her designee, at all reasonable times and upon reasonable advance notice to Grantee, to inspect (*name of property*) in order to ascertain whether Grantee is complying with the conditions of this preservation covenant.

upts due
of SHPO
each
sept. ??

(5) The Grantee will provide the South Carolina SHPO with a written summary of actions taken to implement the provisions of this preservation covenant within one (1) year after the effective date of the transfer of (*name of property*). Similar reports will be submitted to the South Carolina SHPO, with a copy to the Navy, each September thereafter until the Navy has disposed of the entirety of the Naval Base Charleston historic properties.

(6) Failure of the South Carolina SHPO to exercise any right or remedy granted under this covenant shall not have the effect of waiving or limiting the exercise by the South Carolina SHPO or any other right or remedy or the invocation of such right or remedy at any other time.

(7) In the event of a violation of this covenant, and in addition to any remedy now or hereafter provided by law, the South Carolina SHPO may, following reasonable notice to Grantee, institute suit to enjoin said violation or to require the restoration of (*name of property*). The successful party shall be entitled to recover all costs or expenses incurred in connection with such a suit, including all court costs and attorney's fees.

This covenant is binding on Grantee, its successors and assigns, in perpetuity. The restrictions, stipulations and covenants contained herein shall be inserted by Grantee, its successors and assigns, verbatim or by express reference in any deed or other legal instrument by which it divests itself of either the fee simple title or any lesser estate in (*name of property*), or any part thereof.

APPENDIX 8

~~PRESERVATION COVENANT FOR ARCHEOLOGICAL SITE~~

In consideration of the conveyance of the real property that includes the (*name of archeological site*) located in Charleston County, State of South Carolina, which is more fully described as: (*Insert legal description*). Grantee hereby covenants on behalf of himself/herself/itself, his/her/its heirs, successors and assigns at all times to the United States Department of the Navy (Navy) and the South Carolina State Historic Preservation Officer (SHPO) to maintain and preserve the (*name of archeological site*) as follows:

1. No disturbance of the ground surface or any other thing shall be undertaken or permitted to be undertaken on (*name of archeological site*) which would affect the physical integrity of the archeological site without the express prior written permission of the South Carolina SHPO, signed by a fully authorized representative thereof. Should the South Carolina SHPO require, as a condition of the granting of such permission, that the Grantee conduct archeological data recovery operations or other activities designed to mitigate the adverse effect of the proposed activity on the (*name of archeological site*), the Grantee shall at his/her/its own expense conduct such activities in accordance with the Secretary of the Interior's Standards and Guidelines for Archeological Documentation (48 FR 447344-37) and such standards and guidelines as the South Carolina SHPO may specify, including, but not limited to, standards and guidelines for research design, field work, analysis, preparation and dissemination of reports, disposition of artifacts and other materials, consultation with Native American or other organizations, and re-interment of human remains.

2. Grantee shall make every reasonable effort to prohibit any person from vandalizing or otherwise disturbing the (*name of archeological site*) and shall promptly report any such disturbance to the South Carolina SHPO.

3. The South Carolina SHPO shall be permitted at all reasonable times to inspect (*name of archeological site*) in order to ascertain if the above conditions are being observed.

4. In the event of a violation of this covenant, and in addition to any remedy now or hereafter provided by law, the South Carolina SHPO may, following reasonable notice to the Grantee, institute a suit to enjoin said violation or to require the restoration of (*name of archeological site*). The successful party shall be entitled to recover all costs or expenses incurred in connection with such suit, including all court costs and attorney's fees.

5. Grantee agrees that the South Carolina SHPO may at his/her/its discretion, without prior notice to Grantee, convey and assign all or part of its rights and responsibilities contained herein to a third party.

6. This covenant is binding on Grantee, his/her/its heirs, successors and assigns in perpetuity. Restrictions, stipulations, and covenants contained herein shall be inserted by Grantee verbatim or by express reference in any deed or other legal instrument by which he/she/it divests himself/herself/itself of either the fee simple title or any other lesser estate in (*name of archeological site*) or any part thereof.

7. The failure of the South Carolina SHPO to exercise any right or remedy granted under this instrument shall not have the effect of waiving or limiting the exercise of any other right or remedy or the use of such right or remedy at any other time.

This covenant shall be binding servitude upon the real property that includes (*name of archeological site*) and shall be deemed to run with the land. Execution of this covenant shall constitute conclusive evidence the Grantee agrees to be bound by the foregoing conditions and restrictions and to perform to obligations herein set forth.

delete this file

APPENDIX 9

~~ARCHEOLOGICAL DATA RECOVERY PROJECT STANDARDS~~

Archeological data recovery shall be carried out in accordance with a data recovery plan developed in consultation with the South Carolina State Historic Preservation Officer (SHPO). The data recovery plan shall be consistent with the Secretary of the Interior's *Standards and Guidelines for Archeological Documentation* (48 FR 447344-37) and pertinent standards and guidelines of the South Carolina SHPO, and shall take into account the Advisory Council on Historic Preservation's (Council) publication, *Treatment of Archeological Properties* (Advisory Council on Historic Preservation, [draft] 1980), subject to any pertinent revisions the Council may make in the publication prior to completion of the data recovery plan. The plan shall, at a minimum, specify:

1. The property, properties, or portions of properties where data recovery is to be carried out;
2. Any property, properties, or portions of properties that will be transferred without data recovery, and the rationale for doing so;
3. The research questions to be addressed through the data recovery, with an explanation of their relevance and importance;
4. The field work methodology to be used, with an explanation of its relevance to the research questions;
5. The methodology to be used in analysis, with an explanation of its relevance to the research questions;
6. The methodology to be used in data management and dissemination of data, including a schedule;
7. The manner in which recovered materials will be disposed of, in a manner consistent with State of South Carolina law regarding disposition of archeological materials and recovered human remains;

8. The manner in which field notes and other records of field work and analysis will be preserved and disposed of;

9. The methodology to be used to involve the interested public in the data recovery process;

10. The methodology to be used in disseminating results of the work to the interested public;

11. The methodology by which parties with special interests in the property, if any, will be kept informed of the work and afforded the opportunity to participate; and,

12. The schedule for the submission of progress reports and final reports to the South Carolina SHPO and others.

Records of data recovery field work and analysis shall be retained in an archive or other curatorial facility approved by the South Carolina SHPO and disseminated as appropriate to facilitate research and management without unduly endangering historic properties. Material recovered from data recovery projects shall be curated in accordance with 36 CFR Part 79, except that human remains and artifacts associated with graves shall be treated in conformance with requirements of the *Native American Graves Protection and Repatriation Act* (Public Law 101-601).

APPENDIX 9

AMENDMENT FORM

Amendment # _____

Date: _____

PROGRAMMATIC AGREEMENT

AMONG:

**THE DEPARTMENT OF THE NAVY,
SOUTH CAROLINA STATE HISTORIC PRESERVATION OFFICER,
AND
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION**

FOR THE:

**BASE CLOSURE AND DISPOSAL OF
THE NAVAL BASE CHARLESTON, SOUTH CAROLINA**

1. Need for Amendment: (Describe briefly)
2. Proposed Amendment Narrative: (Specify)

DEPARTMENT OF THE NAVY:

By: _____ Date: _____
(Typed Name, Rank, Title and Command)

SOUTH CAROLINA STATE HISTORIC PRESERVATION OFFICER:

By: _____ Date: _____
(Typed Name and Title)

ADVISORY COUNCIL ON HISTORIC PRESERVATION:

By: _____ Date: _____
(Typed Name and Title)



South Carolina
Department of Transportation

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RECEIVED

JUN 21 2010

June 16, 2010

SC Department of
Archives & History

Ms. Elizabeth Johnson
Deputy State Historic Preservation Officer
South Carolina Dept. of Archives & History
8301 Parklane Road
Columbia, S. C. 29223-4905

Re: No need for archaeological or historical architectural surveys for the U.S. 78 over SCL RR Bridge Replacement Project, Charleston County. File No. 10.37903A, PIN 37903_BR01.

Dear Ms. Johnson:

The Department has completed cultural resources background research and a review for the above referenced project. After a careful review of the road plans, GIS data, and digital imagery (e.g. Google Earth), it is recommended that no additional archaeological and historical research is necessary for this project. A memorandum supporting the reasons for this decision is enclosed. The US 78 bridge was previously recommended eligible for the NRHP. An MOA dated October 31, 1996 initiated the HAER documentation of the existing bridge. The HAER documentation was accepted by FHWA on September 2, 1998.

In accordance with the memorandum of agreement approved by the Federal Highway Administration, March 16, 1993, the Department is providing this information as agency official designee, as defined under 36 CFR 800.2, to ensure compliance with Section 106 of the National Historic Preservation Act.

It is requested that you review the enclosed material and, if appropriate, indicate your concurrence in the Department's findings, thus completing the Section 106 consultation process. Please respond within 30 days if you have any objections or if you have need of additional information.

Sincerely,

Chad C. Long,
Archaeologist

JAC:jac

Enclosures

I (~~do not~~) concur in the above determination.

Signed:

SCDAH Date: 6/21/10
DOT Project Coordinator

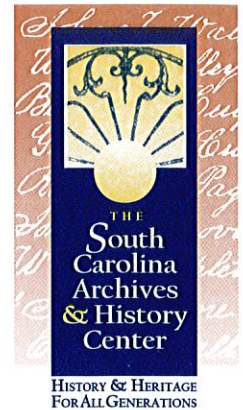
cc: Shane Belcher, FHWA
Wenonah G. Haire, Catawba Nation THPO
Keith Derting, SCIAA

File: ENV/JAC



July 24, 2014

Eric C. Poplin
Brockington and Associates
498 Wando Park Blvd., Suite 700
Mt. Pleasant, SC 29464



Re: SC Public Railways Proposed Intermodal Container Transfer Facility
2011 Cultural Resources Investigations
Charleston County, South Carolina
SHPO Project No. 13-EJ0063

Dear Mr. Poplin:

Thank you for your letter of June 24, 2014, which we received on June 25, 2014, regarding Cultural Resources Investigations conducted in 2011 for the SC Public Railways Proposed Intermodal Container Transfer Facility. We also received a Section 106 Project Review Form, maps showing two proposed locations for the facility, and copies of the *Architectural Survey for the Intermodal Container Transfer Facility at the Charleston Naval Base* and the *Phase I Archaeological Survey of the Intermodal Container Transfer Facility at the Former Charleston Naval Base* prepared by Wilbur Smith Associates as supporting documentation for this undertaking.

The State Historic Preservation Office is providing comments to the Corps of Engineers and SC Public Railways pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR 800. We understand that a draft Environmental Impact Statement (EIS) is currently being prepared for this project. Consultation with the SHPO is not a substitution for consultation with Tribal Historic Preservation Offices, other Native American tribes, local governments, or the public.

Our comments are limited to a review of the investigations described in the 2011 reports and the maps provided with your letter. We understand that the proposed project area has changed since the time of the 2011 investigations, as have plans for the facility; therefore, the Assessments of Effects provided in the two reports are not definitive. An updated Assessments of Effects for the project will be a part of the EIS development. However, we note that the Corps map Figure 6.1-1 Alternative 2 site would severely adversely effect both the Naval Hospital and Naval Shipyard Yard Historic Districts and therefore recommend strongly against the alternative.

We also noted that the boundaries in the "Area to Survey" project tract map and Project Area Map Draft map do not match the project area boundaries as depicted in the Corps map/Figure 2.1-1. We will need to see a map of the current Area of Potential Effects (APE), as determined by the Corps and/or other federal agencies, with historic properties overlayed on the project area boundary/APE. We concur with the shaded areas to survey in the "Area to Survey" map.

Phase I Archaeological Survey: We concur with the field methodology used and the recommendation by Wilbur Smith that no further archaeological work is needed. The 2011 investigation found a loss of integrity due to extensive land modifications and did not identify any archaeological resources. To fully meet the requirements of the SC Standards and Guidelines for Archaeological Investigations to include the cultural history of the project region, we request a more encompassing cultural context chapter. Currently, the report provides a history of the Naval Yard, but given that the archaeological sites

surrounding the area are both prehistoric and historic, the report should cover the full scope of historic properties, and also include a map that shows the previously identified sites in the area in respect to the project's APE.

Architectural Survey: The report outlines previous cultural resources investigations carried out in the *City of North Charleston Historical and Architectural Survey* (1995), *Inventory, Evaluation, and Nomination of Military Installations: Naval Base Charleston* (1995) and National Register of Historic Places district nominations for the Officer Housing Historic District (2007), Naval Hospital Historic District (2010) and Naval Shipyard Historic District (2006). Please note on p. 19 that the Naval Hospital Historic District nomination was revised by Richard Sidebottom.

Wilbur Smith appears to have adequately documented the previous cultural resources investigations, to have surveyed the potentially affected buildings, including previously unevaluated and/or determined not eligible pre- and post-WWII buildings in the Hobson Avenue corridor and around the Naval Hospital District. We concur with the report's recommendation that the Chicora Place neighborhood does not meet the criteria for listing in the National Register.

The Wilbur Smith report did not include the eligible GARCO Employee Housing that was part of the City of North Charleston Survey. The report also does not include the Chicora Elementary School (eligible) and 1915 and 1820 Carlton Street (both determined eligible). Please reassess these resources to determine if they retain eligibility. Please note that the ArchSite map included in Appendix A of the report include Historic Areas polygons does not appear to include individual Historic Structures points (see enclosed printout).

Thank you for the opportunity to review these reports. If you have any questions, please contact me at (803) 896-6168 or emjohnson@scdah.state.sc.us.

Sincerely,

A handwritten signature in cursive script, reading "Elizabeth M. Johnson", followed by a horizontal line.

Elizabeth M. Johnson
Director, Historical Services, D-SHPO
State Historic Preservation Office

